

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS

_____	)	
Conservation Law Foundation, Inc.,	)	
	)	Case No. 1:16-cv-11950-MLW
Plaintiff,	)	
	)	<b>AMENDED COMPLAINT FOR</b>
	)	<b>DECLARATORY AND INJUNCTIVE</b>
	)	<b>RELIEF AND CIVIL PENALTIES</b>
v.	)	
	)	
ExxonMobil Corporation,	)	
ExxonMobil Oil Corporation, and	)	
ExxonMobil Pipeline Company,	)	
	)	
Defendants.	)	
_____	)	

Plaintiff Conservation Law Foundation, Inc. (“CLF”), by and through its counsel, hereby alleges:

**INTRODUCTION**

1. This is a civil suit brought under the citizen suit enforcement provisions of the Federal Water Pollution Control Act, 33 U.S.C. § 1251, *et seq.* (“Clean Water Act” or “CWA”), and the Solid Waste Disposal Act, 42 U.S.C. § 6901, *et seq.* (“Resource Conservation and Recovery Act” or “RCRA”). CLF seeks declaratory and injunctive relief, civil penalties, and other relief the Court deems proper to remedy Defendants ExxonMobil Corporation, ExxonMobil Oil Corporation, and ExxonMobil Pipeline Company’s (hereinafter, collectively, “ExxonMobil”) violations of federal law at its Everett, Massachusetts Terminal (“Everett Terminal” or “Terminal”), which include: (1) ExxonMobil’s past and ongoing failures to comply with its National Pollutant Discharge Elimination System (“NPDES”) permit (EPA NPDES Permit No. MA0000833, as modified on Oct. 12, 2011, hereinafter the “NPDES Permit” or “Permit”) (attached hereto as Exhibit A) and

the Clean Water Act, and (2) that ExxonMobil has contributed and is contributing to past and present handling, storage, treatment, transportation, or disposal of solid and hazardous wastes which may present an imminent and substantial endangerment to health or the environment in violation of RCRA.

### **JURISDICTION AND VENUE**

2. CLF brings this civil suit under the citizen suit enforcement provisions of Section 505 of the Clean Water Act, 33 U.S.C. § 1365, and Section 7002 of the Resource Conservation and Recovery Act, 42 U.S.C. § 6972. This Court has subject matter jurisdiction over the parties and this action pursuant to those statutes and 28 U.S.C. § 1331 (providing district courts with original jurisdiction over an action arising under the Constitution and laws of the United States).

3. Venue is proper in the U.S. District Court for the District of Massachusetts pursuant to Section 505(c)(1) of the CWA, 33 U.S.C. § 1365(c)(1), and Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), because the source of the violations is located within this judicial district.

4. On May 17, 2016, CLF notified ExxonMobil of its intention to file suit for violations of the Clean Water Act, in compliance with the statutory notice requirements set forth in 33 U.S.C. § 1365(a)(1), and the corresponding regulations at 40 C.F.R. § 135.2. Letter from Z. Griefen, Env'tl. Enf't Litigator, CLF, to R. Tillerson, President, ExxonMobil Corp. (May 17, 2016). In that May 17, 2016 Notice Letter, CLF also notified ExxonMobil of its intention to file suit for violations of RCRA, in compliance with the statutory notice requirements set forth in 42 U.S.C. § 6972(b)(2)(A), and the corresponding regulations at 40 C.F.R. Part 254. *Id.* A true and accurate copy of CLF's May 17, 2016 Notice Letter (without attachments) is appended hereto as Exhibit B.

5. On July 8, 2016, CLF provided ExxonMobil with an “Amended Notice of Violations and Intent to File Suit under the Resource Conservation and Recovery Act and Clean Water Act.” In that July 8, 2016 Amended Notice Letter, CLF notified ExxonMobil that “[t]his letter supersedes and replaces that portion of the Notice of Intent issued by CLF on May 17, 2016 regarding the Clean Water Act violations at the Everett Terminal. This letter does not amend or alter those allegations associated with the Resource Conservation and Recovery Act (‘RCRA’) claims contained in the May 17, 2016 Notice of Intent and that portion of the Notice of Intent is included herein only for reference.” Letter from Z. Griefen, Env’tl. Enf’t Litigator, CLF, to R. Tillerson, President, ExxonMobil Corp., at 2 (July 8, 2016). A true and accurate copy of CLF’s July 8, 2016 Amended Notice Letter (without attachments) is appended hereto as Exhibit C.

6. At the time CLF filed the original complaint in this action, more than 60 days had elapsed since CLF served the July 8, 2016 Amended Notice Letter on ExxonMobil, during which time neither the EPA nor the Commonwealth of Massachusetts commenced and diligently prosecuted a court action to redress the Clean Water Act violations alleged in the complaint. 33 U.S.C. § 1365(b)(1)(B).

7. At the time CLF filed the original complaint in this action, more than 90 days had elapsed since CLF served the May 17, 2016 Notice Letter on ExxonMobil, during which time neither the EPA nor the Commonwealth of Massachusetts commenced and diligently prosecuted a court action to redress the RCRA violations alleged in the complaint. 42 U.S.C. § 6972(b).

### **PARTIES**

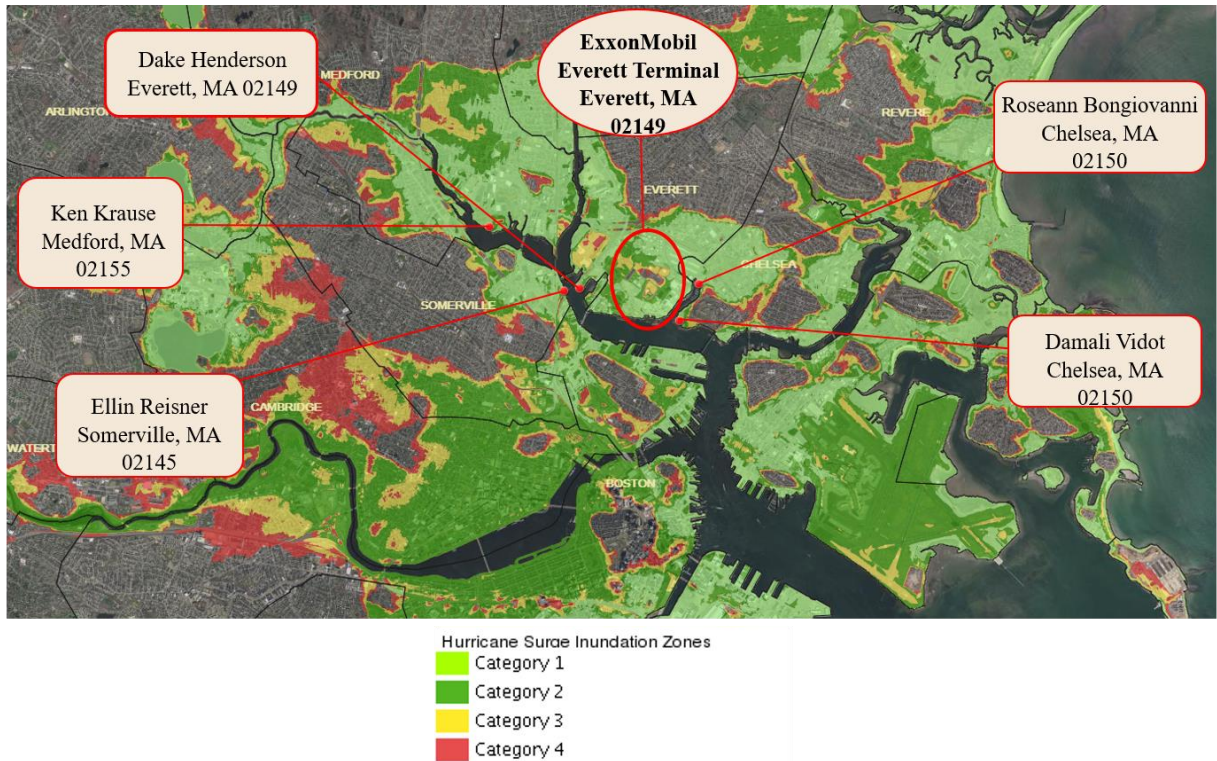
8. Plaintiff CLF is a nonprofit, member-supported organization dedicated to protecting New England’s environment. It is incorporated under the laws of Massachusetts with its principal place of business at 62 Summer Street, Boston, MA, 02110. CLF has over 4,800 members, including

more than 2,700 members in Massachusetts. CLF has long worked to protect the health of New England's waterways, including addressing the significant water quality impacts of industrial and stormwater pollution. CLF members use and enjoy and/or would like to use and enjoy the Mystic and Island End Rivers and downstream receiving waters, which are harmed and threatened by ExxonMobil's permit violations and pollutant discharges and/or releases, for recreational and aesthetic purposes, including, but not limited to, boating, swimming, fishing, and sightseeing.

9. CLF and its members are concerned about, and have an interest in preventing, ExxonMobil's pollutant discharges and/or releases from the Everett Terminal in part because these discharges and/or releases contain toxic pollutants that are known to be harmful to humans and aquatic life and to persist in the environment. These discharges and/or releases of toxic pollutants result in part from ExxonMobil's failure to operate its system for treating stormwater, wastewater, and contaminated groundwater (hereinafter "wastewater treatment system") in a manner that complies with its Permit, meaning that much of this pollution would be avoidable if ExxonMobil operated its wastewater treatment system as required by the Permit. CLF and its members are concerned that these toxic pollutant discharges and/or releases, which frequently exceed the limits in ExxonMobil's Permit, harm their use and enjoyment of the Island End and Mystic Rivers, as well as the ecosystems themselves.

10. CLF and its members are also concerned about, and have an interest in eliminating the risk from, the discharge and/or release of pollutants from the Everett Terminal into the Island End and Mystic Rivers, as well as into nearby communities, downstream receiving waters, and the surrounding environment.

11. As depicted in the following image, the majority of the Everett Terminal is located within even a Category 1 hurricane surge inundation zone, and CLF's members use and enjoy the waters in close proximity to the Everett Terminal:



12. CLF and its members are affected by, and concerned with, pollutant discharges and/or releases resulting from ExxonMobil's failure to utilize good engineering practices in the design and operation of the Terminal and its wastewater treatment system. ExxonMobil's wastewater treatment system is designed, engineered, and operated such that precipitation has caused and will cause untreated and undertreated pollutant discharges and/or releases due to undersized pipes and inadequate storage and treatment infrastructure.

13. Further, in addition to discharges and/or releases due to precipitation, the Everett Terminal has not been designed or modified to address pollutant discharges and/or releases due to flooding; specifically, the Terminal is likely to discharge and/or release pollutants into surrounding waters, groundwater, the community, and the air because it has not been designed to withstand flooding

associated with storm events and storm surge, tides, sea level rise, and increasing sea surface temperatures.

14. The substantial risk of pollutant discharges and/or releases is due to, including, but not limited to, inadequate infrastructure design and infrastructure failure at the Terminal to sufficiently prepare for precipitation and/or flooding that is exacerbated by storms and storm surge, sea level rise, and increasing sea surface temperatures, as discussed in Section III.B, *infra*.

15. CLF and its members are placed directly in harm's way by ExxonMobil's pollutant discharges, releases and/or risk of releases and have no reasonable assurance that they will be protected from pollutants released and/or discharged from the Everett Terminal. ExxonMobil is not in compliance with the Permit for, at a minimum, the reasons set forth herein, including, but not limited to, failing to operate its wastewater treatment system in accordance with the Permit; failing to develop and implement an adequate stormwater pollution prevention plan ("SWPPP"), spill prevention, control and countermeasures plan ("SPCC"), and facility response plan ("FRP") as required by the implementing regulations of the CWA; and failing to utilize good engineering practices in the design and operation of the Terminal and its wastewater treatment system.

16. Defendant ExxonMobil Corporation is a multinational oil and gas corporation incorporated in New Jersey and headquartered in Irving, Texas. It is the largest direct descendant of John D. Rockefeller's Standard Oil Company and was formed on November 30, 1999 by the merger of Exxon (originally the Standard Oil Company of New Jersey) and Mobil (originally the Standard Oil Company of New York).

17. Defendant ExxonMobil Pipeline Company is a Delaware corporation headquartered in Houston, Texas. ExxonMobil Pipeline Company, an indirectly wholly-owned subsidiary of ExxonMobil Corporation, operates oil pipelines and provides the management and employees for

the operation of oil pipelines and oil terminals for ExxonMobil Corporation and its subsidiaries and affiliates.

18. ExxonMobil Pipeline currently provides the management and employees for operation of the Everett Terminal.

19. Defendant ExxonMobil Oil Corporation is a New York corporation headquartered in Irving, Texas. ExxonMobil Oil Corporation, a subsidiary of ExxonMobil Corporation, refines, markets, and transports petroleum and gas products.

20. ExxonMobil Oil Corporation operates the Everett Terminal and holds the NPDES Permit for the Terminal.

21. Upon information and belief, ExxonMobil<sup>1</sup> is the world's largest publicly traded international oil and gas company and the tenth largest company by revenue. ExxonMobil was ranked thirteenth globally on the Forbes Global 2000 list in 2017 and was the fourth most profitable company in the Fortune 500 in 2017.

22. ExxonMobil is a large producer of oil and gas, producing, upon information and belief, approximately 5.3 million BOE (barrels of oil equivalent) every day. ExxonMobil's reserves exceed, upon information and belief, 20 billion BOE. With 37 oil refineries in 21 countries constituting a combined daily refining capacity of 6.3 million barrels, ExxonMobil is the largest oil refiner in the world.

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<sup>1</sup> For ease of reference, "ExxonMobil" will be used herein to refer to ExxonMobil Corporation, ExxonMobil Oil Corporation, ExxonMobil Pipeline Company, and their predecessors collectively.

## **STATUTORY AND REGULATORY BACKGROUND**

### **Clean Water Act**

23. Congress enacted the Clean Water Act to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To accomplish that objective, Congress set as a national goal that “the discharge of pollutants into the navigable waters be eliminated . . . .” *Id.*

24. Accordingly, Section 301(a) of the Clean Water Act, 33 U.S.C. § 1311(a), prohibits the discharge of any pollutant into waters of the United States from a point source, unless the discharge complies with various enumerated sections of the Act.

25. Among other things, Section 301(a) prohibits discharges not authorized by, or in violation of, the terms of a valid NPDES permit issued pursuant to Section 402(p) of the CWA, 33 U.S.C. § 1342(p).

26. Section 502(14) of the Clean Water Acts defines “point source” broadly to include “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14).

27. Under the regulations implementing the Clean Water Act, the definition of “discharge of a pollutant” includes “additions of pollutants into waters of the United States from: surface runoff which is collected or channelled by man.” 40 C.F.R. § 122.2.

28. Dischargers of pollutants, including industrial wastewater, process water, and stormwater associated with industrial activity, must obtain and comply with the requirements of NPDES permits issued under Section 402 of the Clean Water Act, 33 U.S.C. § 1342.



29. NPDES discharge permits contain pollutant sampling and monitoring requirements and limits on the amount or concentration of allowable pollutants, in addition to requirements regarding control measures, best management practices, and recordkeeping and reporting.

30. The discharge of any pollutant in violation of a NPDES permit, the failure to conduct required monitoring for pollutant discharges, and the failure to comply with other requirements of a NPDES permit are all violations of the Clean Water Act, 33 U.S.C. §§ 1311(a), 1342.

31. Section 505(a)(1) of the Clean Water Act, 33 U.S.C. § 1365(a)(1), provides for citizen enforcement actions against any “person” who is alleged to be in violation of an “effluent standard or limitation . . . or an order issued by the Administrator or a State with respect to such a standard or limitation.”

32. Such enforcement action under Clean Water Act Section 505(a) includes an action seeking remedies for unauthorized discharges in violation of Section 301 of the Clean Water Act, 33 U.S.C. § 1311, as well as for failing to comply with one or more permit conditions in violation of Sections 402 and 505(f) of the Act, 33 U.S.C. §§ 1342, 1365(f).

33. Each separate violation of the Clean Water Act subjects the violator to a penalty of up to \$37,500 per day per violation for all violations occurring between January 12, 2009 and November 2, 2015; up to \$51,570 per day per violation for all violations occurring after November 2, 2015 and assessed on or after August 1, 2016 but before January 15, 2017; and up to \$52,414 per day per violation for all violations occurring after November 2, 2015 and assessed on or after January 15, 2017. *See* 33 U.S.C. §§ 1319(d), 1365(a); 40 C.F.R. §§ 19.1–19.4.

#### **Resource Conservation and Recovery Act**

34. RCRA’s citizen suit provision, 42 U.S.C. § 6972, provides in relevant part:

[A]ny person may commence a civil action on his own behalf--  
(1)(A) against any person . . . who is alleged to be in violation of

any permit, standard, regulation, condition, requirement, prohibition, or order which has become effective pursuant to this chapter; or (B) against any person . . . including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment[.]

42 U.S.C. § 6972(a)(1).

35. “RCRA’s primary purpose . . . is to reduce the generation of hazardous waste and to ensure the proper treatment, storage, and disposal of that waste which is nonetheless generated, ‘so as to minimize the present and future threat to human health and the environment.’” *Meghrig v. KFC W., Inc.*, 516 U.S. 479, 483 (1996) (quoting 42 U.S.C. § 6902(b)).

36. RCRA’s citizen suit provision “allows citizen suits when there is a reasonable prospect that a serious, near-term threat to human health or the environment exists.” *Me. People’s All. & Nat. Res. Def. Council v. Mallinckrodt, Inc.*, 471 F.3d 277, 279 (1st Cir. 2006).

## FACTUAL BACKGROUND

### I. ExxonMobil’s Everett Terminal

37. ExxonMobil’s Everett Terminal is a petroleum products distribution and bulk storage terminal that has operated since 1965. It had previously operated as a refinery from 1921 to 1964.

38. The Terminal is approximately 110 acres in size and consists of a light fuel (gasoline, diesel and jet fuel) storage area known as the North Tank Farm; a heavy fuel oil and asphalt storage area known as the South Tank Farm; and a marine bulk products receiving and shipping facility known as the Marine Facilities.

39. Sprague Energy is an asphalt storage and distribution facility located within the South Tank Farm on property formerly owned by ExxonMobil.

40. ExxonMobil's Everett Terminal is engaged in the receipt, storage, and distribution of petroleum products. The spectrum of fuels handled by this facility consists of gasoline, low sulfur diesel, jet fuel, heavy oil, and fuel additives. Petroleum products are received in bulk quantities at the Everett Terminal's marine vessel dock and then transferred, via aboveground piping, to aboveground storage tanks located within the facility's "tank farm." The "tank farm" is comprised of a truck loading rack and twenty-nine storage tanks in which petroleum products are stored. Final distribution of product is conducted at the Terminal's truck loading racks.

41. ExxonMobil's Everett Terminal generates, stores, handles, and disposes of toxic and hazardous chemicals, metals, and compounds, including, but not limited to: Ignitable Waste, Petroleum Hydrocarbons, Benzene, Toluene, Ethylbenzene, (m,p,o), Xylenes, tert-Butyl Alcohol, Naphthalene, Phenols, Phthalates (Phthalate esters), Polycyclic Aromatic Hydrocarbons ("PAHs"), Acenaphthene, Anthracene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, Pyrene, Antimony, Arsenic, Cadmium, Copper, Lead, Nickel, Selenium, and Zinc.

42. The Terminal's marine transfer area is comprised of three active berths (Berths 1, 3, and 4). At active berths, barges and ships offload petroleum products that are piped to and stored in the tanks within the tank farm. Those products are then piped to the Terminal's truck loading rack, where they are loaded onto trucks and distributed.

43. The Terminal is typically operated by a regular staff of approximately fourteen employees, who operate out of an office building located adjacent to the tank farm and just north of the marine docking facility. The regular Terminal staff consists of a terminal superintendent, a terminal supervisor, nine terminal operators who cover twenty-four hour operations of the Terminal, an electrician, a mechanic, and an accountant. At any given time, at least two terminal operators are

on duty. Additional Terminal support is provided by a field operations specialist, an area administrator, and an area engineer.

44. ExxonMobil Pipeline is responsible for the proper operation and maintenance of the Terminal. Those responsibilities entail, among other duties, monitoring the Terminal and, when necessary, cleaning, repairing, and replacing, as appropriate, worn or damaged equipment, including pipes, valves, docks, and tanks. Likewise, ExxonMobil Pipeline was and is responsible for monitoring the transfer of petroleum products at each point in the process, from delivery at the marine transfer area through the receipt and storage of those products in the tanks in the tank farm, to the transport of those products to the truck loading rack where they are loaded on trucks for distribution.

45. The ExxonMobil Everett Terminal operations also include the collection and discharge of stormwater from all areas of the Terminal, including from Sprague Energy. “Sprague Energy is co-located in the South Tank Farm. ExxonMobil is responsible for storm water and any other discharges from Sprague Energy into ExxonMobil’s storm water collection system. All discharges generated in the Marine Facility, the South Tank Farm, and the North Tank Farm flow to the terminal’s storm drain system and collect at the treatment works located in the North Tank Farm. The treatment works includes flow distribution, oil/water separation and transfer pumping equipment, as described in section 6.2.9.” Ex. A, Permit Fact Sheet No. MA0000833 at 8.

46. All of the stormwater discharged is collected by the Terminal’s stormwater collection system which drains to the wastewater treatment system near the eastern edge of the North Tank Farm.

47. Residential areas are located in close proximity to the Terminal.

## **II. The Island End River & ExxonMobil's NPDES Permit**

48. ExxonMobil operates the Everett Terminal pursuant to the Permit (EPA NPDES Permit No. MA0000833, as modified on October 12, 2011).

49. The Permit has expired by its own terms, but has been administratively continued while ExxonMobil's renewal application is pending. As such, the termination date for the Permit is not known.

50. The Permit authorizes ExxonMobil, subject to certain conditions, to discharge stormwater, groundwater, steam condensate, tank bottoms, and potable water (used for garage floor washing, hydrostatic testing, truck washing, fire testing, landscape watering, and safety showers).

51. The receiving water identified in ExxonMobil's Permit is the Island End River (Boston Harbor/Mystic River Watershed/Segment MA71-03), a small tributary to the Mystic River.

52. The Island End River flows into the Mystic River, approximately one-half mile west of the Mystic River's confluence with Boston Harbor.

53. The Island End River is designated as a Class SB water body by the Commonwealth of Massachusetts, meaning that it is "designated as a habitat for fish, other aquatic life and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation." 314 Mass. Code Regs. 4.05.

54. Under Section 303(d) of the Clean Water Act, states are required to develop information on the quality of their water resources and report this information to the EPA, the U.S. Congress, and the public.

55. In Massachusetts, the responsibility for identifying waters that are impaired, meaning that they do not meet the Massachusetts Water Quality Standards, 314 Mass. Code Regs. 4.0, resides with the Massachusetts Department of Environmental Protection ("MassDEP").

56. MassDEP's most recent assessment of impaired waters was published in *Massachusetts Year 2016 Integrated List of Waters*, MassDEP (June 2017).

57. The *Massachusetts Year 2016 Integrated List of Waters* identifies the lower reach of the Mystic River (Segment ID No. MA71-03, which includes the Island End River) as one of the waterways within Massachusetts that is impaired. The impairment, as identified by MassDEP, is related to the presence of the following pollutants, which were not considered to be present due to natural causes: Ammonia (Un-ionized); Dissolved Oxygen; Foam/Flocs/Scum/Oil Slicks; Petroleum Hydrocarbons; Taste and Odor; Fecal Coliform; PCB in Fish Tissue; Sediment Screening Value (Exceedence); and Other (Contaminants in Shellfish).

58. The *Massachusetts Year 2014 Integrated List of Waters* identified this section of the Mystic River, including the Island End River, as impaired for the following pollutants: Ammonia (Un-ionized); Dissolved Oxygen; Foam/Flocs/Scum/Oil Slicks; Petroleum Hydrocarbons; Taste and Odor; Fecal Coliform; PCB in Fish Tissue; Sediment Screening Value (Exceedence); and Other. MassDEP, *Massachusetts Year 2014 Integrated List of Waters* (Dec. 2015).

59. The *Massachusetts Year 2010 Integrated List of Waters* identified this section of the Mystic River, including the Island End River, as impaired for the following pollutants: Ammonia (Un-ionized); Dissolved Oxygen; Foam/Flocs/Scum/Oil Slicks; Petroleum Hydrocarbons; Taste and Odor; Fecal Coliform; PCB in Fish Tissue; and Other. MassDEP, *Massachusetts Year 2010 Integrated List of Waters* (Nov. 2011).

60. As required by statute, EPA has included conditions in the Permit intended to ensure that discharges from the Terminal will not cause or contribute to a violation of the Massachusetts Water Quality Standards.

61. The half-moon shaped pond within the Everett Terminal that ExxonMobil has incorporated into the Terminal's wastewater treatment system has existed since time immemorial and was a part of the Island End River until, upon information and belief, ExxonMobil (or its predecessors in interest) filled in the surface water connection between the half-moon shaped pond and the Island End River sometime in the early 1900s.

62. The half-moon shaped pond is connected to the Island End River via surface water flows, subsurface hydrological connections, and man-made conduits. The half-moon shaped pond, the Island End River, and the Mystic River are all "waters of the United States" as defined in 40 C.F.R. § 122.2, and, therefore, "navigable waters" as defined in 33 U.S.C. § 1362(7).

63. Upon information and belief, the half-moon shaped pond has existed in its current location since at least the early 1900s and flowed into the Island End River until ExxonMobil (or its predecessors in interest) impounded and appropriated it.

64. The half-moon shaped pond was part of the traditionally navigable Island End River or, alternatively, a navigable tributary to the traditionally navigable Island End River, and therefore was and is a water of the United States.

65. A man-made structure cannot eliminate the Clean Water Act's jurisdiction over a water of the United States.

66. A man-made diversion, however long ago undertaken, cannot change a water of the United States into something else.

67. ExxonMobil discharges untreated pollutants into the half-moon shaped pond without a permit to do so, in violation of the Clean Water Act.

68. Permitted stormwater discharges from the Everett Terminal are conveyed to the Island End River by means of a 6-foot diameter, 1,500-foot long culvert. The downstream end of the culvert is regularly submerged by, and its flow influenced by, the tidal influences of the Island End River.

69. There are three discharge outfalls from the Everett Terminal that connect to the culvert: Outfalls 01A, 01B, and 01C. The Permit includes mandatory permit conditions that specify the required operation of the stormwater system, including specific conditions and limitations governing the discharge from each Outfall.

70. The Permit includes numeric effluent limitations for each Outfall, including effluent limitations for PAHs.

71. The Permit requires that ExxonMobil “develop, implement, and maintain a [SWPPP] designed to reduce, or prevent, the discharge of pollutants in storm water to the receiving waters.”

Ex. A, Permit Part I.B.1 at 13.

72. The Permit requires that any new or amended SWPPP contain a certification that, among other things, “the information submitted is, to the best of [one’s] knowledge and belief, true, accurate, and complete.” Ex. A, Permit Part I.B.2 at 13; 40 C.F.R. § 122.22(d).

73. The Permit requires that “[t]he SWPPP shall be prepared in accordance with good engineering practices.” Ex. A, Permit Part I.B.4 at 13.

74. The Permit requires that “[t]he SWPPP shall . . . identify potential sources of pollution that may reasonably be expected to affect the quality of the storm water discharges.” *Id.*

75. The Permit requires that “[t]he SWPPP shall . . . describe and ensure implementation of practices which will be used to reduce the pollutants and assure compliance with this permit.” *Id.*



76. The Permit requires that “[t]he SWPPP shall contain . . . [a] summary of all pollutant sources which includes all areas where spills have occurred or could occur. For each source, identify the expected drainage and the corresponding pollutant.” Ex. A, Permit Part I.B.4(c) at 13.

77. The Permit requires that

The permittee shall amend and update the SWPPP within 30 days for any changes at the facility affecting the SWPPP. Changes which may affect the SWPPP include, but are not limited to, the following activities: a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States . . . . Any amended or new versions of the SWPPP shall be re-certified by the Permittee. Such re-certifications also shall be signed in accordance with the requirements identified in 40 CFR § 122.22.

Ex. A, Permit Part I.B.6 at 14.

78. ExxonMobil has amended its SWPPP without making any structural changes to the Terminal seven times since the Permit became effective in 2012, most recently in November 2015. *See* Sept. 12, 2017 Hr’g Tran. at 31.

79. The Permit requires that

the SWPPP shall contain the elements listed below: A description of all storm water controls, both structural and non-structural. [Best Management Practices (“BMPs”)] must include . . . preventative maintenance programs, spill prevention and response procedures, runoff management practices, and proper handling of deicing materials. The SWPPP shall describe how the BMPs are appropriate for the facility. All BMPs shall be properly maintained and be in effective operating conditions.

Ex. A, Permit Part I.B.4(e) at 13–14.

80. The Permit incorporates spill prevention and response procedures as a BMP in the SWPPP.

81. Applicable spill prevention and response procedures include a Spill Prevention, Control, and Countermeasures (“SPCC”) Plan, which is required pursuant to 40 C.F.R. § 112, Subpart A.

82. ExxonMobil is required to prepare an SPCC for the Everett Terminal because it is an

owner or operator of a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful, as described in part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines. . . .

40 C.F.R. § 112.1(b).

83. The SPCC must include “procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines. . . .” *Id.* § 112.1(a)(1).

84. The SPCC regulations highlight the importance of SPCC Plans:

SPCC Plans are designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules. The purpose of an SPCC Plan is to form a comprehensive Federal/State spill prevention program that minimizes the potential for discharges. The SPCC Plan must address all relevant spill prevention, control, and countermeasures necessary at the specific facility. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State, or local laws.

*Id.* § 112.1(e).

85. The SPCC regulations state that

Except as provided in §112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part. (1) By means of this certification the Professional Engineer attests: (i) That he is familiar with the requirements of this part; (ii) That he or his agent has visited and examined the facility; (iii) That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part; (iv) That procedures for required inspections and testing have been established; and (v) That the Plan is adequate for the facility. (vi) That, if applicable, for a produced water container subject to §112.9(c)(6), any procedure to minimize the amount of free-phase oil is designed to reduce the accumulation of free-phase oil and the

procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan. (2) Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement such Plan in accordance with the requirements of this part.

*Id.* § 112.3(d).

86. Applicable spill prevention and response procedures also include a FRP, which is required pursuant to 40 C.F.R. § 112, Subpart A.

### **III. Pollutant Discharges and/or Releases from the Everett Terminal**

87. ExxonMobil has regularly discharged and/or released pollutants from the Terminal in amounts or concentrations greater than allowed under the Permit due to its unlawful operation of its wastewater treatment system.

88. In addition, ExxonMobil has failed to design and operate the Terminal and its wastewater treatment system in accordance with good engineering practices and otherwise in accordance with the mandatory conditions of the Permit, which are intended to prevent the discharge and/or release of pollutants from the Terminal in amounts or concentrations greater than allowed under the Permit.

89. Because ExxonMobil has not designed and operated the Terminal in accordance with good engineering practices, the Terminal has discharged and/or released, and is likely to discharge and/or release, pollutants in amounts or concentrations greater than allowed under the Permit due to, including, but not limited to, inadequate infrastructure design and infrastructure failures.

90. ExxonMobil's wastewater treatment system is designed and engineered such that it causes untreated or undertreated pollutant discharges and/or releases due to undersized pipes and storage facilities. Further, the Everett Terminal has not been designed or modified to address pollutant discharges and/or releases due to flooding; specifically, the Terminal is likely to discharge and/or

release pollutants to surrounding waters, groundwater, the community, and the air because it has not been designed to withstand flooding associated with storm events and storm surge, tides, sea level rise, and increasing sea surface temperatures.

91. The substantial risk of pollutant discharges and/or releases due to, including, but not limited to, inadequate infrastructure design and infrastructure failure at the Terminal results, in part, from precipitation and/or flooding exacerbated by storms and storm surges, sea level rise, and increasing sea surface temperatures.

92. ExxonMobil has stated, in the context of a letter to EPA attempting to justify why records related to the Everett Terminal are too sensitive to be released publicly, that “[g]iven the Terminal’s location . . . a release at the Terminal would likely have catastrophic effects on both human life and the environment.” Ex. D.

93. Unless ExxonMobil fortifies the Terminal, there is a substantial risk of pollutant discharges and/or releases due to, including, but not limited to, inadequate infrastructure design and infrastructure failure.

A. Pollutant Discharges Resulting in Violations of Required Operational Protocols, Numeric Effluent Limits, and Water Quality Standards

94. ExxonMobil’s pollutant discharges regularly violate the Permit’s required operational protocols and numeric effluent limits, as well as State Water Quality Standards.

95. The Permit contains operational requirements that define the circumstances under which ExxonMobil may discharge through each of its three Outfalls.

96. The mandatory operational protocol in the Permit was implemented pursuant to a settlement agreement between ExxonMobil and EPA, whereby ExxonMobil “agreed to extensively redesign its effluent treatment system in order to improve effluent quality under all flow conditions, including through the use of a continuously operated advanced treatment system,

and a flow equalization tank to store storm water volume during periods of peak storm water flow.”

Ex. A, Response to Comments on Draft Modification of NPDES Permit No. MA0000833 at 1-2.

97. The Permit provides, in relevant part:

Wastewater Treatment System Flow

a. The continuous treatment system shall be designed, constructed, maintained and operated to treat the volume of storm water, groundwater and other associated wastewaters up to and including 280 gpm through outfall 01C.

b. The collection, storage and treatment systems shall be designed, constructed, maintained and operated to treat the total equivalent volume of storm water, groundwater, hydrostatic test water, boiler condensate, fire testing water, truck wash water, effluent pond water and continuous treatment system filter backwash water which would result from a 10-year 24-hour precipitation event, which volume shall be discharged through outfall 01C and outfall 01A. All wet weather and dry weather discharges less than or equal to the design capacity of the continuous treatment system [280 gpm] shall be treated through the continuous treatment system and discharged at outfall 01C. The flow through the corrugated plate separator shall not exceed 4,000 gpm.

Ex. A, Permit Part I.A.23(a)-(b) at 10-11.

98. The Permit further specifies that discharges from Outfall 01B shall be limited to situations when the combined capacity of the wastewater treatment system to collect and treat through Outfalls 01A and 01C is exceeded and are expected only in extreme weather events. *See* Ex. A, Permit Part I.A.23(c) at 11.

99. The Terminal Operator’s Guide (“TOG”) similarly provides that

All dry weather flow, 0–280 gpm, is treated by the OWS followed by dry weather treatment system (DWTS; also known as the CTS) and discharged to outfall 01C.

Moderate storm event flow, 280–4,000 gpm, is treated by the OWS and discharged to outfall 01A without treatment by the DWTS.

Heavy storm event flow, 4,000–13,600 gpm, is pumped to tank 140 for treatment by the OWS or DWTS following the storm event. Up to 1.3 million gallons will be transferred to tank 140.

TOG Oil Water Separator § 6.2.

100. Outfall 01C is designated as the primary outfall because its discharges are treated through the continuously operated advanced treatment system, which was implemented to improve effluent quality under all flow conditions.

101. Discharges from Outfalls 01A and 01B receive lower levels of treatment, if any, and are thus only authorized when total flow exceeds the capacity of Outfall 01C.

102. Contrary to the express terms of the Permit, discharges from Outfall 01A frequently occur at the Terminal even when Outfall 01C has not reached its 280 gpm capacity, resulting in the entire discharge system, including Outfalls 01A and 01C, being operated in violation of the Permit. *See* Ex. E (the content of Ex. E was attached to CLF's Amended Notice Letter as Ex. 1).

103. The Permit also includes numeric effluent limitations for each Outfall.

104. ExxonMobil has repeatedly discharged pollutants from the Terminal into the Island End River and Mystic River, from and through point sources, in concentrations and amounts that exceed the numeric effluent limits set out in its NPDES Permit.

105. ExxonMobil discharged pollutants in amounts exceeding the maximum allowable levels set by the numeric effluent limits in the Permit at least 184 times since 2010. *See* Ex. F (the content of Ex. F was attached to CLF's Amended Notice Letter as Ex. 3) and Ex. G.

106. The pollutants discharged by ExxonMobil in excess of the permitted levels include, but are not limited to: Anthracene; Acenaphthene; Acenaphthylene; Benzo(a)anthracene; Benzo(b)fluoranthene; Benzo(k)fluoranthene; Benzo(ghi)perylene; Benzo(a)pyrene; Chrysene; Dibenzo(a,h)anthracene; Fluoranthene; Fluorene; Indeno(1,2,3-cd)pyrene; Naphthalene; Phenanthrene; Pyrene; and Total Suspended Solids.

107. In addition to the numeric effluent limitations, the Permit also requires ExxonMobil to ensure that its discharges do not cause violations of State Water Quality Standards; that pollutants are not discharged in concentrations or combinations that would be hazardous or toxic to human or aquatic life; that a discharge does not cause a visible oil sheen, foam, or floating solids; and that its discharges do not impair the uses designated for the Island End and Mystic Rivers. *See* Ex.A, Permit Part I.A.2 at 3; Part I.A.3 at 5; Part I.A.4 at 6; Part I.A.5 at 9; Part I.A.8 at 9; Part I.A.9 at 9; Part I.A.24 at 11.

108. Massachusetts Surface Water Quality Standards provide in relevant part that “[a]ll surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.” 314 Code Mass. Regs. § 4.05(5)(e).

109. Under the Massachusetts Surface Water Quality Standards, the National Recommended Water Quality Criteria published by EPA in 2002 are the allowable receiving water concentrations unless otherwise specified. *See id.*

110. Many of ExxonMobil’s discharges violate applicable State Water Quality Standards, and as such, constitute violations of the Permit and the Clean Water Act. *See* Ex. H (the content of Ex. H was attached to CLF’s Amended Notice Letter as Ex. 2) and Ex. I.

**B. Factors Causing and/or Contributing to the Substantial Risk of Pollutant Discharges and/or Releases from the Terminal**

111. In addition to the violations set forth in paragraphs 94-110 above, ExxonMobil has discharged and/or released pollutants from the Terminal in amounts or concentrations greater than allowed under the Permit, in violation of the Permit and the Clean Water Act, and will likely

continue to do so, due to, including, but not limited to, infrastructure failures and inadequate infrastructure design.

112. ExxonMobil has failed to use good engineering practices at the Terminal because it has not designed the Terminal or wastewater treatment system to address precipitation and/or flooding, which is exacerbated by storms and storm surges, sea level rise, and increasing sea surface temperatures.

113. Climate change has further exacerbated and continues to exacerbate precipitation events and flooding, in part because warmer air holds more moisture, higher sea surface temperatures cause stronger storms and higher storm surges, and melting sea ice raises sea levels.

114. In *Massachusetts v. EPA*, the Supreme Court recognized “the enormity of the potential consequences associated with manmade climate change” and “[t]he risk of catastrophic harm.” 549 U.S. 497, 525-26 (2007). “The harms associated with climate change are serious and well recognized.” *Id.*

115. “That global warming is taking place as a result of human emissions of carbon dioxide and other greenhouse gases, and that its consequences are likely to be harmful, is widely accepted in the scientific community.” *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295, 341 (D. Vt. 2007).

116. ExxonMobil’s website articulating the company’s position on climate change states that “[t]he risk of climate change is clear and the risk warrants action.” ExxonMobil, *Our Position on Climate Change*, <http://corporate.exxonmobil.com/en/current-issues/climate-policy/climate-perspectives/our-position> (last visited Oct. 4, 2017).

117. ExxonMobil has long been well aware of the present impacts and risks of climate change.



118. ExxonMobil scientists have contributed climate research and related policy analysis to more than fifty papers in peer reviewed publications from at least 1977 to the present.

119. In a November 2015 letter, ExxonMobil agreed that the second assessment report of the Intergovernmental Panel on Climate Change (“IPCC”), published in 1995, reached the following conclusion: “The balance of evidence suggests a discernible human influence on global climate.” Letter from Kenneth P. Cohen, Vice President Public and Gov’t Affairs, ExxonMobil, to Lee Bollinger, President, Columbia University, at 3 (Nov. 20, 2015).

120. In recent briefing filed in Massachusetts Superior Court, ExxonMobil argued that “[f]or the last decade, ExxonMobil has publicly ‘recognize[d] that the risk to society posed by greenhouse gas emissions may prove significant,’ that ‘action is justified now,’ and that the ‘risks of global climate change’ ‘have been, and may in the future’ continue to impact its operations.” Memorandum of ExxonMobil Corporation in Support of Its Emergency Motion to Set Aside or Modify the Civil Investigative Demand or Issue a Protective Order, *In Re Civil Investigative Demand No. 2016-EPD-36, Issued by the Office of the Attorney General*, C.A. No. 16-1888F, at 16 (Superior Court Department of the Trial Court, June 16, 2016).

121. As support for this argument, ExxonMobil directed the Superior Court to its 2002 report entitled “Corporate Citizenship in a Changing World.” In that report, ExxonMobil states that

[w]e recognize that the risk of climate change and its potential impacts on society and ecosystems may prove to be significant. While research must continue to better understand these risks and possible consequences, we will continue to take tangible actions and work with others to develop effective long-term solutions that minimize the risk of climate change from energy use without unacceptable social and economic consequences.

ExxonMobil, *Corporate Citizenship in a Changing World*, at 10 (2002).

122. ExxonMobil also directed the Superior Court to its 2006 Corporate Citizenship Report, in which ExxonMobil states that “[b]ecause the risk to society and ecosystems from rising

greenhouse gas emissions could prove to be significant, strategies that address the risk need to be developed and implemented.” ExxonMobil, *Taking on the world’s toughest energy challenges: 2006 Corporate Citizenship Report*, at 15 (2006).

123. ExxonMobil scientists have participated in the IPCC since its inception in 1988, and in the National Academy of Sciences’ review of the Third National Climate Assessment.

124. Regardless of the cause, as summarized in the Third National Climate Assessment, climate change is currently impacting human and environmental health and welfare.

125. “Global climate is changing and this is apparent across the U.S. in a wide range of observations. The global warming of the past 50 years is primarily due to human activities, predominantly the burning of fossil fuels.” J. M. Melillo et al. eds., *Climate Change Impacts in the United States: The Third National Climate Assessment*, U.S. GLOBAL CHANGE RESEARCH PROGRAM, at 15 (2014),

[http://s3.amazonaws.com/nca2014/low/NCA3\\_Climate\\_Change\\_Impacts\\_in\\_the\\_United%20States\\_LowRes.pdf?download=1](http://s3.amazonaws.com/nca2014/low/NCA3_Climate_Change_Impacts_in_the_United%20States_LowRes.pdf?download=1).

126. “Some extreme weather and climate events have increased in recent decades, and new and stronger evidence confirms that some of these increases are related to human activities.” *Id.*

127. “Human-induced climate change is projected to continue, and it will accelerate significantly if global emissions of heat-trapping gases continue to increase.” *Id.*

128. “Impacts related to climate change are already evident in many sectors and are expected to become increasingly disruptive across the nation throughout this century and beyond.” *Id.*

129. “Climate change threatens human health and well-being in many ways, including through more extreme weather events and wildfire, decreased air quality, and diseases transmitted by insects, food, and water.” *Id.* at 16.

130. “Infrastructure is being damaged by sea level rise, heavy downpours, and extreme heat; damages are projected to increase with continued climate change.” *Id.*

131. “Water quality and water supply reliability are jeopardized by climate change in a variety of ways that affect ecosystems and livelihoods.” *Id.*

132. “Ecosystems and the benefits they provide to society are being affected by climate change. The capacity of ecosystems to buffer the impacts of extreme events like fires, floods, and severe storms is being overwhelmed.” *Id.* at 17.

133. “Ocean waters are becoming warmer and more acidic, broadly affecting ocean circulation, chemistry, ecosystems, and marine life.” *Id.*

134. “Planning for adaptation (to address and prepare for impacts) and mitigation (to reduce future climate change, for example by cutting emissions) is becoming more widespread, but current implementation efforts are insufficient to avoid increasingly negative social, environmental, and economic consequences.” *Id.*

135. These impacts, which exacerbate the risk of pollutant discharges and/or releases from precipitation and/or flooding, have already occurred, are continuing to occur, and are certain to worsen over time.

136. “Massachusetts’ climate is already changing and will continue to do so over the course of this century[.]” Executive Office of Energy and Environmental Affairs, *Massachusetts Climate Change Adaptation Report*, at 1 (Sept. 2011), <http://www.mass.gov/eea/docs/eea/energy/cc/eea-climate-adaptation-report.pdf>.

137. “Regarding infrastructure, the most significant vulnerability of existing structures stems from the fact that they were built based on historic weather patterns, not taking into account future

predicted changes to sea level, precipitation, or flooding. This puts the infrastructure at increased risk of future damage and economic costs.” *Id.* at 4.

138. “The energy sector’s three primary climate change concerns are flooding (due to increased precipitation and storm surge), extreme events (such as hurricanes and snow and ice storms), and increased temperature.” *Id.* at 56.

139. “The following are the predicted impacts on energy infrastructure: . . .”

(a) “Extreme and more frequent weather events, including flooding, may damage energy production and delivery equipment such as generation plants (e.g. the Pilgrim nuclear power station), terminals, storage facilities and above- and below-ground wires and pipes. Damaged infrastructure will lead to interrupted service, degraded energy reliability, increased equipment maintenance or replacement costs, and adverse impacts to public safety.” *Id.*

(b) “Sea level rise and storm-related flooding may require relocating coastal infrastructure, which would require new real estate acquisitions for replacement sites.” *Id.*

140. “Infrastructure will be increasingly compromised by climate-related hazards, including sea level rise, coastal flooding, and intense precipitation events.” Radley Horton et al., *The Third National Climate Assessment, Ch. 16: Northeast*, U.S. GLOBAL CHANGE RESEARCH PROGRAM, at 379 (2014), <https://www.conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/USNCA%20Chapter%2016%20Northeast.pdf>.

1. Precipitation

141. Severe or intense precipitation events have caused, contributed to, and will continue to cause and contribute to, pollutant discharges and/or releases from the Terminal due to, including, but not limited to, inadequate infrastructure design and infrastructure failure.

142. A severe rainfall event in July 2010 resulted in a discharge of untreated pollutants directly into the Island End River from the Terminal (NRC Report No. 947252). In an August 15, 2010 letter to the MassDEP, ExxonMobil explained:

On July 10<sup>th</sup> the facility experienced a severe rainfall event, noted in the Boston and Cambridge area as a rainfall of 2-3.5” of rain in ~2 hrs. The sudden intense rainfall resulted in the flooding of the facility oil water separator, compromising the function of the system. Water continued to be pumped from the suction end of the [Oil Water Separator].

Letter to Water Technical Unit, U.S. EPA, from A. F. Powers, Terminal Superintendent, ExxonMobil Pipeline Co., *Submission of Discharge Monitoring Reports, Permit No. MA0000833* (Aug. 15, 2010).

143. “The Northeast has experienced a greater recent increase in extreme precipitation than any other region in the United States; between 1958 and 2010, the Northeast saw more than a 70% increase in the amount of precipitation falling in very heavy events (defined as the heaviest 1% of all daily events).” *Third Nat’l Climate Assessment, Ch. 16: Northeast* at 373.

144. “Past observations show that extreme precipitation events (>50 mm / 2.0 in. of rain) have increased during the period between 1949 and 2002 in eastern Massachusetts.” *Mass. Climate Change Adaptation Rep.* at 19.

145. Annual precipitation in Massachusetts is expected to continue to only increase, and wintertime precipitation—mostly rain—is expected to increase to a greater extent. *See id.* at 17-

19. Similarly, extreme precipitation events are expected to continue their increase in the northeastern United States. *See id.*

146. Warmer temperatures result in higher amounts of precipitation because warmer air holds more moisture. “Between 1895 and 2011, temperatures in the Northeast increased by almost 2°F (0.16°F per decade), and precipitation increased by approximately five inches, or more than 10% (0.4 inches per decade).” *Third Nat’l Climate Assessment, Ch. 16: Northeast* at 373.

147. Since at least 1977, ExxonMobil acknowledged that doubling CO<sub>2</sub> levels would cause a change of about 2°C on average in temperature and corresponding changes in precipitation, stating that the “CO<sub>2</sub> problem . . . is the most important man-made weather problem that we have to contend with.” ExxonMobil Inter Office Mem. from H. Shaw to J. Harrison, *Environmental Effect of Carbon Dioxide*, at 4 (Oct. 31, 1977); *see also* Letter from J.F. Black to F.G. Turpin, Vice President, Exxon Research and Engineering Co. Petroleum Staff, *The Greenhouse Effect*, at 11 (Jun. 6, 1978) (attaching “Greenhouse Effect Presentation Transcript of May 18, 1978”) (“With a warmer climate around the world, it seems fairly certain that precipitation would increase. . . The changing precipitation patterns, however, would benefit some areas and would harm others.”); Slide presentation for meeting with Exxon Corp. personnel Re: Basis for the CO<sub>2</sub> Greenhouse Effect at 3 (Aug. 24, 1982) (stating that “[w]arming could induce major changes in climate,” including temperature, rainfall patterns and coastal sea levels); Letter from Roger W. Cohen, Director, Theoretical and Mathematical Sciences Laboratory, to A. M. Natkin, Office of Science and Technology, Exxon Corporation, at 1-2 (Sept. 2, 1982) (“There is unanimous agreement in the scientific community that a temperature increase of this magnitude would bring about significant changes in the earth’s climate, including rainfall distribution and alterations in the biosphere.”).

148. Since at least 2012, ExxonMobil has acknowledged in documents directly related to the Everett Terminal that “good engineering practices” must include consideration of “severe precipitation event[s]” and “severe flooding.” *See* Ex. J.

149. However, ExxonMobil has not considered or taken action to address severe or intense precipitation events at the Everett Terminal.

## 2. Flooding

150. Flooding in Massachusetts and the Boston area will cause and contribute to pollutant discharges and/or releases from the Terminal due to, including, but not limited to, inadequate infrastructure design and infrastructure failure.

151. Flooding in Massachusetts and the Boston area has increased, is continuing to increase, and will only worsen over time, exacerbating the risk of pollutant discharges and/or releases from the Terminal.

152. “Storms such as the Hurricane of 1938, which caused widespread coastal flooding and resulted in losses such as loss of life, property, and infrastructure, are now considered one in two-year events in Massachusetts.” *Mass. Climate Change Adaptation Rep.* at 8.

153. “The number of days with tidal flooding has more than quadrupled since 1970—to roughly nine events per year. And as sea level continues to rise, Boston is projected to see more than 70 tidal floods annually by 2045.” Erika Spanger-Siegfried et al., Union of Concerned Scientists, *Encroaching Tides How Sea Level Rise and Tidal Flooding Threaten U.S. East and Gulf Coast Communities over the Next 30 Years*, at 44 (Oct. 2014), <http://www.ucsusa.org/sites/default/files/attach/2014/10/encroaching-tides-full-report.pdf>.

154. The increase in flooding has been immediately apparent during recent king tides. The king tide is the highest predicted high tide of the year at a coastal location. EPA, *King Tides and Climate Change*, <https://www.epa.gov/cre/king-tides-and-climate-change> (last visited Sept. 28, 2017).

155. The extreme flooding associated with king tides prompted the Boston Globe earlier this year to ask readers to “[i]magine a winter coastal storm and high astronomical high tides. If the storm remained stalled for multiple days and you had big tides, coastal flooding would reach catastrophic levels. This is precisely what happened in the Blizzard of 1978, and there’s no reason to think it’s not going to happen again at some point in the future.” Dave Epstein, *Remember Last Fall’s King Tides? They’re Coming Back*, BOSTON GLOBE (Apr. 24, 2017), <https://www.bostonglobe.com/metro/2017/04/24/remember-last-fall-king-tides-they-back/1nzSszFjbdqOaCeB9klQ7H/story.html>.

156. King tides, and high tides generally, are higher than in the past due to sea level rise:

[k]ing tides bring unusually high water levels, and they can cause local tidal flooding. Over time, sea level rise is raising the height of tidal systems. Average daily water levels are rising along with the oceans. As a result, high tides are reaching higher and extending further inland than in the past. King tides preview how sea level rise will affect coastal places. As time goes by, the water level reached now during a king tide will be the water level reached at high tide on an average day.

EPA, *King Tides and Climate Change*. “Sea level rise will make today’s king tides become the future’s everyday tides.” *Id.*

157. The Federal Emergency Management Agency (“FEMA”) flood maps for Boston, Chelsea, Revere, and Winthrop were recently updated. The updated FEMA maps for Chelsea include a substantial part of the city in the flood hazard zone.

158. For Everett, Massachusetts, the FEMA “flood of record” for storm surge risk occurred in February 1978 and had a flood elevation of 10.5 feet.



159. The majority of the areas at the Everett Terminal are at or below 10.5 feet.

160. Application of the same data and information that were applied to Chelsea to Everett places a substantial part of ExxonMobil's Everett Terminal in the flood hazard zone.

161. The boundary between the cities of Everett and Chelsea is in close proximity to, and at the same elevation as, the Everett Terminal and the area of Chelsea nearest the Everett Terminal is in the flood hazard zone.

162. Despite the extensive information and knowledge in ExxonMobil's possession regarding precipitation events and flooding exacerbated by storm surges, sea level rise, and increasing sea surface temperatures, ExxonMobil has not requested an update of the FEMA flood hazard maps for the location of its Everett Terminal.

a. *Storms and Storm Surge Contribute to Flooding*

163. Increasingly frequent and/or intense storm events and storm surges will cause and contribute to pollutant discharges and/or releases from the Terminal due to, including, but not limited to, inadequate infrastructure design and infrastructure failure.

164. "People living in coastal flood zones are vulnerable to direct loss of life and injury associated with tropical storms and nor'easters. Flood damage to personal property, businesses, and public infrastructure can also result. . . ." *Third Nat'l Climate Assessment, Ch. 16: Northeast* at 378.

165. "[I]t is *virtually certain* [i.e., there is a 99–100% probability] that intense tropical cyclone activity has increased in the North Atlantic since 1970." IPCC, *Climate Change 2014: Synthesis Report, Contribution of Working Groups I, II, and III to the Fifth Assessment Report of the IPCC*, at 378 (2014) (emphasis original), [http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR\\_AR5\\_FINAL\\_full\\_wcover.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf).

166. Coinciding with the increase in hurricanes has been “a substantial increase in most measures of Atlantic hurricane activity since the early 1980s, the period during which high-quality satellite data are available. These include measures of intensity, frequency, and duration as well as the number of strongest (Category 4 and 5) storms.” *Third Nat’l Climate Assessment* at 41.

167. Along the U.S. East Coast, “[t]here has been a trend of increasing significant wave heights since at least the mid-1970s, with the trends being statistically significant at the 95% confidence level.” Paul Komar & Jonathan Allan, *Increasing Hurricane-Generated Wave Heights along the U.S. East Coast and Their Climate Controls*, JOURNAL OF COASTAL RESEARCH, at 487 (Mar. 2008), <http://users.clas.ufl.edu/adamp/Outgoing/ForJJandLaura/Komar2008Journal%20of%20Coastal%20Research.pdf>. Those positive trends in wave height along the East Coast have been linked to the increasing numbers of hurricanes. IPCC, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change*, at 181 (2012), [https://www.ipcc.ch/pdf/special-reports/srex/SREX\\_Full\\_Report.pdf](https://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf).

168. An analysis conducted by the National Oceanic and Atmospheric Administration’s (“NOAA”) Hurricane Research Division based on historical data from 1944 to 1999 found that “the Commonwealth has a six- to 30-percent chance of a tropical storm or hurricane affecting the area each year.” Commonwealth of Massachusetts, *2013 State Hazard Mitigation Plan*, at 340 (Sept. 2013), <http://www.mass.gov/eopss/docs/mema/resources/plans/state-hazard-mitigation-plan/massachusetts-state-hazard-mitigation-plan.pdf>.

169. The storm surge threat associated with nor’easters in New England is steadily increasing due to sea level rise. Jeff Masters, *Climate Change Impact on Nor’easters: An Increased Storm Surge Threat*, WEATHER UNDERGROUND (Feb. 11, 2013),

<https://www.wunderground.com/blog/JeffMasters/climate-change-impact-on-noreasters-an-increased-storm-surge-threat.html>. Moreover, “[w]intertime top 5% heavy precipitation events (both rain and snow) have increased over the Northeast U.S. in recent decades [ ], so Nor’easters have been more of a threat to cause flooding problems and heavy snow events.” Jeff Masters, *The Future of Intense Winter Storms* (Mar. 3, 2010), <https://api.wunderground.com/blog/JeffMasters/article.html?entrynum=1441&MR=1>.

170. The “SLOSH” model (Sea, Lake, and Overland Surges from Hurricanes), developed by NOAA’s National Weather Service, is used by the National Hurricane Center to forecast storm surge and model storm surge vulnerability.

171. The SLOSH model depicts the present-day risk to the Everett Terminal of inundation from storm surge associated with a Category 1 through Category 4 hurricane.

172. As indicated in the “SLOSH” model, the majority of the Everett Terminal is included within even a Category 1 Hurricane Surge Inundation Zone, which is indicated by the color light green as shown in the legend below the map on the following page:



Census 2010 Municipalities Labels

## Legend for Hurricane Surge Inundation Zones

- Category 1
- Category 2
- Category 3
- Category 4

Hurricane Surge Inundation Zones

2013-2014 Color Orthos (USGS)

[http://maps.massgis.state.ma.us/map\\_ol/oliver.php](http://maps.massgis.state.ma.us/map_ol/oliver.php).

173. ExxonMobil has recognized the significant threat posed by storms and storm surges. *See* Ken Cohen, *Planning for Hurricanes isn't Limited to Hurricane Season*, ENERGY FACTOR BY EXXONMOBIL (May 31, 2012) (“Hurricane season officially starts June 1, but recent tropical storms along the Atlantic Coast are reminders that hurricane preparations don’t start or end on that particular date.”), <http://www.exxonmobilperspectives.com/2012/05/31/planning-for-hurricanes-isnt-limited-to-hurricane-season/>; Ken Cohen, *With Hurricanes, No Matter the Season We’ll be Prepared*, ENERGY FACTOR BY EXXONMOBIL (Jun. 19, 2014) (“Just one storm has the capacity to

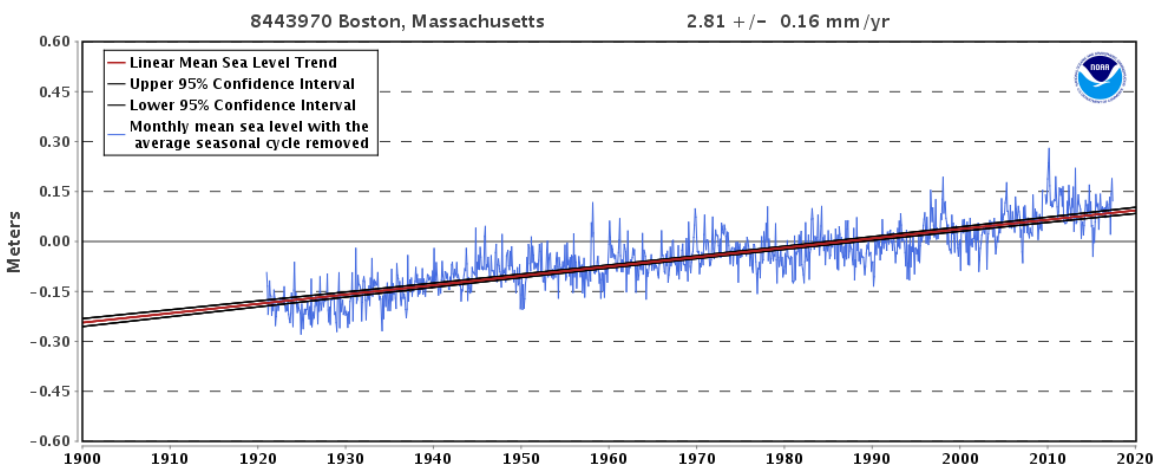
cause great damage.”), <http://www.exxonmobilperspectives.com/2014/06/19/with-hurricanes-no-matter-the-season-well-be-prepared/>; Ken Cohen, *On the Same Page Dealing with Natural Disasters*, ENERGY FACTOR BY EXXONMOBIL (Jun. 22, 2015) (“[N]o matter how mild a hurricane season is expected to be, it only takes one storm to do major damage. A tropical storm or hurricane can destroy people’s lives and property.”), <http://www.exxonmobilperspectives.com/2015/06/22/on-the-same-page-dealing-with-natural-disasters/>.

174. However, ExxonMobil has not taken action to address this threat at the Everett Terminal.

b. *Sea Level Rise Contributes to Flooding*

175. Sea level rise that has already happened, and that will certainly happen in the near future, interacts with the impacts of tides, heavy precipitation, and storm surge to cause and contribute to pollutant discharges and/or releases from the Terminal due to, including, but not limited to, inadequate infrastructure design and infrastructure failure.

176. The mean sea level trend measured at the Boston Tide Gauge confirms past, present, and ongoing sea level rise in Massachusetts:



NOAA, *Mean Sea Level Trend Measured at the Boston Tide Gauge*, TIDES & CURRENTS,

[http://tidesandcurrents.noaa.gov/sltrends/sltrends\\_station.shtml?stnid=8443970](http://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=8443970) (last visited Sept. 28, 2017).

177. “Coastal flooding [in the Northeast] has increased due to a rise in sea level of approximately 1 foot since 1900. This rate of sea level rise exceeds the global average of approximately 8 inches . . . .” *Third Nat’l Climate Assessment, Ch. 16: Northeast* at 373.

178. Sea level trends along the Northeast Atlantic “have been higher than the global rate over the last several decades, capped by a recent multiyear jump in sea level beginning in 2009.” NOAA, *Global and Regional Sea Level Rise Scenarios for the United States*, at 9 (Jan. 2017), [https://tidesandcurrents.noaa.gov/publications/techrpt83\\_Global\\_and\\_Regional\\_SLR\\_Scenarios\\_for\\_the\\_US\\_final.pdf](https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf) (citation omitted). This trend is projected to continue. *See id.* at vii (“Along regions of the Northeast Atlantic (Virginia coast and northward) and the western Gulf of Mexico coasts, RSL [relative sea level] rise is projected to be greater than the global average for almost all future GMSL [global mean sea level] rise scenarios.”).

179. Researchers have detected a “‘hotspot’ of accelerated sea level rise along the 1,000 km of coast from Cape Hatteras to above Boston and suggest it may be related to circulation changes in the North Atlantic Ocean.” NOAA, *Global Sea Level Rise Scenarios for the United States National Climate Assessment*, at 10 (Dec. 6, 2012), [https://cpo.noaa.gov/sites/cpo/Reports/2012/NOAA\\_SLR\\_r3.pdf](https://cpo.noaa.gov/sites/cpo/Reports/2012/NOAA_SLR_r3.pdf). “Dynamical [sea level rise] resulting from ocean circulation patterns could be additive to the global mean [sea level rise] trend, creating even higher sea levels and potential coastal impacts in Boston, New York, and Washington, DC when compared to the Southeastern US.” *Id.* at 18-19.

180. “Bamber et al. (2009) found that the collapse of the West Antarctic Ice Sheet would not only add to sea level rise but, as it shrinks, would also cause a redistribution of ocean mass due to

the reduced gravitational attraction of the smaller West Antarctic Ice Sheet. This would be a global effect, most pronounced in a band at  $\sim 40^\circ$  north latitude where the sea level rise is projected to be about 25 percent more than elsewhere around the globe. Coastal Massachusetts extends from roughly  $41^\circ 10'N$  to  $42^\circ 53'N$  and would experience the full brunt of this impact. There is presently high uncertainty regarding the potential for full West Antarctic Ice Sheet collapse, but this effect also applies to a partial collapse. Overall, by 2100 sea level rise in Massachusetts could range from 29 to 201 cm.” *Mass. Climate Change Adaptation Rep.* at 16.

181. Massachusetts coastal communities regularly face impacts associated with storm damage, flooding, and erosion, which adversely affect residential and commercial development, infrastructure and critical facilities, and natural resources and ecosystems. Sea level rise will exacerbate these problems, and as the rate of rise accelerates, not only will the impacts from coastal storm events become more frequent and widespread, but even daily high tides will have adverse effects. Massachusetts Office of Coastal Zone Management, *Sea Level Rise: Understanding and Applying Trends and Future Scenarios for Analysis and Planning*, at 5 (Dec. 2013), <http://www.mass.gov/eea/docs/czm/stormsmart/slr-guidance-2013.pdf>.

182. Certain future changes are “committed” by “virtue of past or current forcings.” IPCC, *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the IPCC*, at 128 (2013), [http://www.climatechange2013.org/images/report/WG1AR5\\_ALL\\_FINAL.pdf](http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf). Continued sea level rise is “committed” as a result of past change in atmospheric composition, due to historical greenhouse gas and aerosol emissions, as well as the inertia and timescales of climate systems. IPCC, *Climate Change 2007: The Physical Science Basis, Working Group I Contribution to the*

*Fourth Assessment Report of the IPCC*, at 68, 77 (2007), [http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4\\_wg1\\_full\\_report.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4_wg1_full_report.pdf).

183. The IPCC states that “it is *virtually certain* that global mean sea level rise will continue beyond 2100, with sea level rise due to thermal expansion to continue for many centuries.” *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the IPCC* at 28, 105, 1140 (emphasis original). The IPCC defines “virtually certain” as a “99-100% probability.” *Id.* at 4.

184. Researchers have found that the amount of greenhouse gases emitted by the year 2000 have already committed global mean sea level rise to approximately 1.7 meters (range of 1.2 to 2.2 meters). See Peter Clark, *Consequences of Twenty-First-Century Policy for Multi-Millennial Climate and Sea-Level Change*, NATURE CLIMATE CHANGE, at 365 (Feb. 8, 2016), <http://climatehomes.unibe.ch/~stocker/papers/clark16natcc.pdf>. Sea level rise varies regionally, but the majority of coastlines will experience sea level rise within a range of 20% of the global mean sea level rise. See *id.*

185. Other researchers have found that cumulative emissions through the year 2015 have already committed global sea level rise to 1.6 meters (range of 0 to 3.7 meters) and that cumulative emissions through 2050, under the IPCC Fifth Assessment intermediate emissions pathway, commit Boston to sea level rise of 2.8 meters. See Benjamin Strauss et al., *Carbon choices determine US cities committed to future below sea level*, PNAS, 13511, Table S3 (click “Tables S3–S6”) (Sept. 18, 2015), <http://www.pnas.org/content/112/44/13508.full.pdf>.

186. “Current rates of sea level rise and projections for accelerated trends are all significant threats to the coastal communities of the state. Sea level rise would increase the height of storm surges and associated coastal flooding frequencies, permanently inundate low-lying coastal areas,



and amplify shore line erosion. Extensive development and infrastructure, both public and private, would be affected in these expanding vulnerable areas.” *Mass. Climate Change Adaptation Rep.* at 16-17.

187. “Sea level rise of two feet, without any changes in storms, would more than triple the frequency of dangerous coastal flooding throughout most of the Northeast.” *Third Nat’l Climate Assessment, Ch. 16: Northeast* at 374.

188. “Analysis of five coastal sites in the Northeast, including Boston and Woods Hole, indicates that future sea level rise would create significant increases in the frequency of today’s 100-year flood events.” *Mass. Climate Change Adaptation Rep.* at 17 (citations omitted).

189. “Engineered structures, such as seawalls designed to stabilize shorelines, could be overtopped.” *Id.*

190. ExxonMobil has long been aware of the threat of sea level rise. *See, e.g., ExxonMobil Memorandum, Controlling Atmospheric CO<sub>2</sub>*, at Appendix A (Oct. 16, 1979) (quoting a 1969 E.K. Peterson study regarding the effects of doubling 1860 CO<sub>2</sub> concentration, including a temperature increase of 9°F above 1950 levels and sea level rise of 4 feet); Coordination and Planning Division of Exxon R & E Company, *Summary of Technical Review of CO<sub>2</sub> Greenhouse Effect*, at 1, 12-13 (April 1, 1982) (“[S]ome scientists suggest there could be considerable adverse impact including the flooding of some coastal land masses as a result of a rise in sea level due to melting of the Antarctic ice sheet;” “if the Antarctic ice sheet . . . should melt, then this could cause a rise in sea level on the order of 5 meters. Such a rise would cause flooding on much of the U.S. East Coast.”); ExxonMobil Slide Presentation, *Corporate Research Program in Climate/ CO<sub>2</sub>-Greenhouse*, at 9 (Feb. 2, 1984) (acknowledging that the climatic effect of CO<sub>2</sub> doubling includes mean surface temperature rise between 1.5°C and 4.5°C as well as a decrease in coverage and thickness of sea

ice and concurrent sea level rise); ExxonMobil Presentation, *Potential Enhanced Greenhouse Effects, Status and Outlook*, at 23 (Feb. 22, 1989) (citing the 1983 National Research Council projections of temperature increase of 1.5-4.5°C (2-3 times greater in polar regions) and sea level rise of 70 cm over the next 100 years and acknowledging that data confirmed that greenhouse gasses are increasing, fossil fuels contribute most of the CO<sub>2</sub>, and projections suggest “significant climate change” and “sea level rise with generally negative consequences”).

191. In fact, ExxonMobil has been acknowledged as a groundbreaking leader in scientific research analyzing historic sea levels and sedimentary deposition at different sea levels over time.

192. The discipline of sequence stratigraphy had its origin in the 1977 comprehensive monograph of Payton, which first published the results of the extensive in-house stratigraphic studies by Peter Vail and his colleagues within ExxonMobil.

193. The Vail group drew their insights from the analysis of seismic profiles available to them as part of ExxonMobil’s worldwide exploration efforts. Two quite distinct but intertwined paradigms were encompassed by Payton’s original publication, and persisted in later summaries by ExxonMobil researchers.

194. The recognition of unconformity-bounded sequences was predicated upon the belief that sequence deposition was controlled by sea level fluctuations, leading to the concept of systems tracts and the development of what later writers have termed the “sequence stratigraphic model (SSM).”

195. At the same time, it was asserted that an accurate sea level history could be reconstructed from sequence analysis, leading to the concept of a global sea level curve, or global sea level model (GSM), which could be applied to the interpretation of continental margin strata worldwide.

196. ExxonMobil scientists developed the GSM model of global sea level change, referred to as the global eustasy model. The global eustasy model was developed by Peter Vail and his coworkers at ExxonMobil during the 1960s. Vail's contributions fundamentally altered the techniques for reservoir mapping and prediction. Vail's work was hailed as a theoretical and technical breakthrough.

197. The ExxonMobil global eustasy model was based on proprietary geophysical data also developed through ExxonMobil's scientific assessments. Articles about the new techniques appeared in the journal *Science* commenting about the "staggering amount of data normally denied to outsiders." Most of these data have never been seen or published outside of ExxonMobil.

198. Publications and conference presentations by the Vail group appear as large volumes of work accompanied by superb graphics, in which funding subsidies from ExxonMobil are acknowledged.

199. However, ExxonMobil has not taken action to address the threat of and threats associated with sea level rise at the Everett Terminal.

*c. Increasing Sea Surface Temperatures Contribute to Flooding*

200. Increases in sea surface temperature and the resulting increase in frequency and magnitude of storm events causes and contributes to pollutant discharges and/or releases from the Terminal due to, including, but not limited to, inadequate infrastructure design and infrastructure failure.

201. Regarding "Climate-related Drivers of Coastal Change," "the primary climatic forces affecting the coasts are changes in temperature, sea and water levels, precipitation, storminess, ocean acidity, and ocean circulation." *Third Nat'l Climate Assessment* at 582. "Sea surface temperatures are rising and are expected to rise faster over the next few decades, with significant regional variation, and with the possibility for more intense hurricanes as oceans warm. . . ." *Id.*

202. Sea surface temperatures have increased and are expected to continue to increase in Massachusetts. Data collected at Woods Hole, Massachusetts showed that from 1970–2002, the annual mean sea surface temperature increased by 1.3°C (2.3°F) at a rate of 0.04°C (0.07°F) per year. *Mass. Climate Change Adaptation Rep.* at 15. “By mid-century, sea surface temperature could increase by 1.7°C (3°F) and, by the end of this century, it could increase 2.2° to 2.8°C (4° to 5°F) under the lower emissions scenario, or 3.3° to 4.4°C (6° to 8°F) under the higher emissions scenario.” *Id.* (citations omitted).

203. The rate of increase in the Northeast is also greater than the global average: “[f]rom 1982 to 2006, sea surface temperature in the coastal waters of the Northeast warmed by close to twice the global rate of warming over this period.” *Third Nat’l Climate Assessment* at 566.

204. Increases in sea surface temperature have been connected to increased risk of frequency and magnitude of storm events. The observed increases in activity in North Atlantic hurricanes “are linked, in part, to higher sea surface temperatures in the region that Atlantic Hurricanes form in and move through.” *Id.* at 41.

205. ExxonMobil has not taken action to address the threats associated with increasing sea surface temperature at the Everett Terminal.

### C. Lessons from the (Not-So-Distant) Past

206. The unfortunate reality is that the present and substantial continued risk of pollutant releases and/or discharges from the Terminal is made worse by the factors discussed in Section III.B, *supra*.

207. This reality has been demonstrated in the context of severe weather events, including Superstorm Sandy. As reported on November 14, 2012 in the New Jersey news media outlet NJ.com:

[A]t the Sewaren terminal of Motiva Enterprises, a subsidiary of Shell, the tidal surge damaged bulk fuel tanks, releasing approximately 378,000 gallons of low-sulfur diesel, officials said. Nearly three quarters of that amount escaped the containment area, rushing into the Arthur Kill and its tributaries. That's like 30 tanker trucks pouring their contents into the water.

It represents the largest fuel or oil spill in New Jersey in perhaps a decade or more, officials said.

'That's a major spill,' said Larry Ragonese, a spokesman for the state Department of Environmental Protection. 'On a normal basis, we would have had quite a bit of uproar and media attention.'

That, of course, did not happen as the region reeled amid death, destruction and darkness. Quickly and quietly, though, Shell and the other two oil companies that experienced leaks — at the Phillips 66 refinery in Linden and at the Kinder Morgan terminal in Carteret — moved in to plug breached tanks and contain what had already been released.

Within 24 hours, hundreds of workers had responded with oil skimmers, vacuum trucks, water barges, work boats and thousands of feet of containment boom, according to local, state and federal officials who have provided oversight for the work.

Ryan Hutchins, *Oil Spills, Other Hurricane Sandy Damage Present N.J. with Potential Pollution Headaches*, NJ.COM. (Nov. 14, 2012), [http://www.nj.com/news/index.ssf/2012/11/hurricane\\_sandy\\_oil\\_spills.html](http://www.nj.com/news/index.ssf/2012/11/hurricane_sandy_oil_spills.html).

208. Harvard's Daniel P. Schrag, Sturgis Hooper Professor of Geology in the Faculty of Arts and Sciences, stated in a news report regarding Superstorm Sandy that

'[b]y midcentury, this will be the new normal,' Schrag predicted. 'How do you deal with extreme heat in the summer? It's going to be a challenge, but humans are adaptable. It's not going to be easy, just like a 13-foot storm surge will be the new norm on the Eastern seaboard.'

Edward Mason, *Hello Again, Climate Change: Sandy Prompts Renewed Interest and Concern*, and Schrag Says it Should, HARVARD GAZETTE (Nov. 6, 2012), <http://news.harvard.edu/gazette/story/2012/11/hello-again-climate-change/>.

209. More recently, Hurricane Harvey's intense rains and flooding struck the Texas energy sector, damaging facilities and causing releases and discharges of pollutants, including toxic chemicals. Preliminary data from the National Weather Service shows that between August 24 and September 1, 2017, as much as 64.58 inches of rain fell in parts of Texas, including areas in and around Houston and Beaumont.

210. According to pollution reports submitted to state and federal regulators, "more than two dozen storage tanks holding crude oil, gasoline and other contaminants ruptured or otherwise failed when Harvey slammed into the Texas coast, spilling at least 145,000 gallons [ ] of fuel and spewing toxic pollutants into the air." Matthew Brown & Larry Fenn, *Tank Failures in Harvey Reveal Vulnerabilities in Storm*, ASSOCIATED PRESS (Sept. 9, 2017), <https://apnews.com/0485b3c424be4ce3bb555cf16a88f3bd>.

211. From August 27 to September 2, 2017, ExxonMobil filed nine reports with the National Response Center documenting incidents related to Hurricane Harvey at its Baytown, Beaumont, and Houston facilities.

212. Incidents reported include: "Discharging of an unknown oil . . . due to an excess storm event which resulted in runoff volumes that exceed capacity of storm water retention pond;" "3 gallons of crude oil that released from a sump tank at facility due to flooding caused by Hurricane Harvey;" "Report of a very light oil sheen on the property of a facility caused by Hurricane Harvey;" "Roof almost caved in from the amount of rain in the area resulting in a release of materials," including 18 pounds of benzene; and "Due to the Hurricane, a storage tank roof tilted and material released from the roof drain into the secondary containment area," including two barrels of crude oil. U.S. Coast Guard National Response Center, *2017 Reports*, <http://www.nrc.uscg.mil/>.

213. At Kinder Morgan's Pasadena Terminal, "a [ ] 6.3 million gallon [ ] fuel storage tank spilled an unspecified amount of gasoline . . . after tilting over due to large volumes of rain from Harvey."

*Texas Regulators Report Gas Spill Due to Harvey*, ASSOCIATED PRESS (Aug. 28, 2017),

<https://www.houstonpublicmedia.org/articles/news/2017/08/28/233577/texas-regulators-report-gas-spill-due-to-harvey/>.

214. Another spill occurred at a ConocoPhillips facility when rising waters associated with heavy rains and flooding washed out four storage tanks holding approximately 16,160 gallons of oil and approximately 3,192 gallons of produced water. Conoco Phillips, *ConocoPhillips Responds to Harvey* (Aug. 2017), <http://www.conocophillips.com/Pages/Hurricane-Relief-Efforts.aspx>.

215. At an Arkema Inc. facility in Crosby, Texas, flooding overwhelmed primary power and two sources of emergency backup power causing explosions and black smoke that forced evacuations of areas within 1.5 miles of the plant. Arkema, *Explosions and Smoke Reported at Arkema Inc. Crosby Plant* (Aug. 31, 2017), <http://www.arkema-america.com/en/media/news-overview/news/Explosions-and-Smoke-Reported-at-Arkema-Inc.-Crosby-Plant/>.

216. According to the Texas Commission on Environmental Quality ("CEQ")'s assessment of Superfund sites, as of September 2, 2017, "13 sites have been flooded and/or are experiencing possible damage due to the storm." Texas CEQ, *Status of Superfund sites in areas affected by Harvey* (Aug. 2017), <https://www.tceq.texas.gov/news/releases/status-of-superfund-sites-affected-by-harvey>.

217. Climate change increases the likelihood that extreme rainfall will accompany storms like Harvey because a warmer atmosphere holds more water and warmer oceans help pack these storms with even more moisture. Climate change is also increasing the severity of storm-related damages, largely because of rising sea levels.

**IV. ExxonMobil has Failed to Utilize Good Engineering Practices at the Everett Terminal**

218. Engineers customarily take the factors discussed in Section III.B, *supra*, into account throughout their facility planning, decision-making, construction and design, engineering certification, and operation processes in order to assure adequate control and treatment of pollutant discharges and/or releases.

219. Engineers exercising skill and judgment reasonably expected of similarly situated professionals make engineering decisions based on information regarding the factors discussed in Section III.B, *supra*.

220. For example, the U.S. Army Corps of Engineers issued a regulation in 2013 entitled “Incorporating Sea Level Change in Civil Works Programs.” That regulation states that

[sea level change] can cause a number of impacts in coastal and estuarine zones, including changes in shoreline erosion, inundation or exposure of low-lying coastal areas, changes in storm and flood damages, shifts in extent and distribution of wetlands and other coastal habitats, changes to groundwater levels, and alterations to salinity intrusion into estuaries and groundwater systems.

Army Corps of Engineers, Regulation No. 1100-2-8162, at Appendix B, B-1 (Dec. 31, 2013), [http://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER\\_1100-2-8162.pdf](http://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1100-2-8162.pdf).

221. The Army Corps acknowledges that sea level change is likely to impact coastal projects, and “[a]s a result, managing, planning, engineering, designing, operating, and maintaining for [sea level change] must consider how sensitive and adaptable 1) natural and managed ecosystems and 2) human and engineered systems are to climate change and other related global changes.” *Id.* at 2.

222. The Army Corps’ regulation also states that “[h]istoric trends in local MSL [mean sea level] are best determined from tide gauge records. The NOAA Center for Operational



Oceanographic Products and Services (CO-OPS) provides historic information and local MSL trends for tidal stations operated by NOAA/NOS in the US.” *Id.* at Appendix B, B-2 (citation omitted).

223. The historic rate of relative sea level change at relevant local tide stations (as shown in the graph above for the Boston Tide Gauge, *see supra* ¶ 176) should be used as the low rate for analysis, because it is a linear extrapolation from historic tide gauge measurements and does not account for any future acceleration of sea level rise, ice sheet melt, or sea level rise due to warmer water occupying a greater volume.

224. At the local level, municipalities also take the factors discussed in Section III.B, *supra*, into account in designing and constructing various infrastructure projects. For example, the Deer Island sewage treatment plant in Boston, Massachusetts was designed and built taking future sea level rise into consideration. Because the level of the plant relative to the level of the ocean at the outfall is critical to the amount of rainfall and sewage that can be treated, the plant was built 1.9 feet higher than it would otherwise have been to accommodate the amount of sea level rise projected to occur by 2050, the planned life of the facility. The planners recognized that the future would be different from the past and decided to plan for the future based on the best available information.

225. ExxonMobil touts a strong commitment to robust engineering of its facilities in the face of acknowledged risks of severe storm events and sea level rise.

226. ExxonMobil has stated that the “company [ ] engineers its facilities and operations robustly with extreme weather considerations in mind. Fortification to existing facilities and operations are addressed, where warranted due to climate or weather events, as part of ExxonMobil’s Operations Integrity Management System.” *Energy and Carbon – Managing the Risks*, at 14,

<http://cdn.exxonmobil.com/~media/global/files/energy-and-environment/report---energy-and-carbon---managing-the-risks.pdf> (last visited Oct. 18, 2017).

227. In discussing the topic of “Engineer[ing] facilities resilient to extreme events,” ExxonMobil has stated that

ExxonMobil also employs robust engineering with regard to its facilities. Local climate, as well as potential changes in local conditions over the life of the investment (such as changes to sea level or permafrost) are carefully assessed and considered. Given the spatial and temporal uncertainties of many extreme weather events, particularly with respect to future changes in climate, facilities are generally engineered to be resilient to extreme event “tails”, with the inclusion of additional safety factors. Some jurisdictions, such as Singapore, have specific building standards that are employed in our designs that consider potential climate change impacts.

For existing facilities, processes and systems to manage extreme weather events (such as Gulf Coast hurricanes) are considered along with other factors in the company’s Operations Integrity Management System (OIMS), both with regard to risk management and extreme event response. These processes are drilled extensively, both internally and cooperatively with local authorities, to ensure readiness when needed, and are systematically evaluated and continuously improved as part of our ongoing OIMS system.

*Energy and Climate*, at 20-21, <http://cdn.exxonmobil.com/~media/global/files/energy-and-environment/report---energy-and-climate.pdf> (last visited Oct. 18, 2017).

228. Contrary to this statement, ExxonMobil has not engineered its Everett Terminal robustly with extreme weather events in mind, nor has it ensured and improved “readiness” with regard to risk management and extreme event response.

229. ExxonMobil’s operations around the world include both onshore and offshore activities that can experience weather extremes and storms, large sea level variations and wave height, and temperature and precipitation extremes.

230. ExxonMobil claims that, “[the company] design[s], construct[s] and operate[s] [its] facilities to withstand a variety of extreme weather conditions, much of the range of potential outcomes.” CDP, *Investor CDP 2014 Information Request, Exxon Mobil Corporation*, at 10 (2014), <http://cdn.exxonmobil.com/~/media/global/files/energy-and-environment/2014-cdp-response.pdf>.

231. ExxonMobil further asserts that

[a]t ExxonMobil, risks are mitigated with appropriate contingency planning and the application of a comprehensive risk management system. Known risks are mitigated first of all by factoring them into equipment and facility design, construction and operations. Business continuity planning and emergency preparedness are two essential elements to manage risks of business disruption, so that we can continue supplying fuels for transportation and electrical power as well as chemicals for consumer products.

*Id.*

232. However, unlike others involved in large-scale engineering projects, ExxonMobil has not taken information regarding the factors discussed in Section III.B, *supra*, known to it into account in designing, constructing, and operating the Everett Terminal to protect the Terminal and surrounding communities from pollutant discharges and/or releases.

233. ExxonMobil’s disregard of the substantial and imminent risks to the Everett Terminal and its continuing failure to protect the Terminal against such risks make ExxonMobil liable for violations of the CWA and RCRA, as described below.

## **CLAIMS FOR RELIEF**

### **First Cause of Action**

#### **Violations of the Clean Water Act – Failure to Comply with Permit’s Operational Requirements for Discharges**

234. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

235. The Permit contains operational requirements that define the circumstances under which ExxonMobil may discharge through each of its three Outfalls.

236. Contrary to the express terms of the Permit, discharges from Outfall 01A frequently occur even when Outfall 01C has not reached its 280 gpm capacity. *See* Ex. E.

237. As a result, the entire discharge system, including Outfalls 01A and 01C, is being operated in violation of the Permit.

238. Through such unlawful operation, ExxonMobil is routinely failing to comply with its Permit and ensure that all of its discharges receive the highest level of treatment possible.

239. Each and every day that the discharge system was or is operated in violation of the Permit constitutes a separate and distinct violation of the Clean Water Act.

240. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

## **Second Cause of Action**

### **Violations of the Clean Water Act – Violations of Permitted Effluent Limits**

241. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

242. ExxonMobil's NPDES Permit for the Everett Terminal includes numeric effluent limitations for each outfall.

243. ExxonMobil has repeatedly discharged pollutants from the Terminal into the Island End River and Mystic River, from and through point sources, in concentrations and amounts that exceed the numeric effluent limits set out in its NPDES Permit.

244. ExxonMobil discharged pollutants in amounts exceeding the maximum allowable levels set by the numeric effluent limits in the Permit at least 184 times since 2010. *See* Ex. F and Ex. G.

245. The pollutants discharged by ExxonMobil in excess of the permitted levels include, but are not limited to: Anthracene; Acenaphthene; Acenaphthylene; Benzo(a)anthracene; Benzo(b)fluoranthene; Benzo(k)fluoranthene; Benzo(ghi)perylene; Benzo(a)pyrene; Chrysene; Dibenz(a,h)anthracene; Fluoranthene; Fluorene; Indeno(1,2,3-cd)pyrene; Naphthalene; Phenanthrene; Pyrene; and Total Suspended Solids.

246. Each and every violation of the effluent limitations in the Permit is a separate and distinct violation of ExxonMobil's NPDES Permit and Section 301(a) of the CWA, 33 U.S.C. § 1311(a).

247. Further, each and every day that there is discharge from Outfall 01A when Outfall 01C is below its maximum capacity of 280 gpm constitutes a separate and distinct violation for each and every pollutant present in the discharge, since no pollutants may be discharged from Outfall 01A if Outfall 01C has not reached maximum capacity.

248. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

### **Third Cause of Action**

#### **Violations of the Clean Water Act – Violations of State Water Quality Standards**

249. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

250. The Permit requires ExxonMobil to ensure that its discharges do not cause violations of State Water Quality Standards, that pollutants are not discharged in concentrations or combinations that would be hazardous or toxic to human or aquatic life, and that its discharges do not impair the uses designated for the Island End and Mystic Rivers. *See* Ex. A, Permit Part I.A.2 at 3; Part I.A.3 at 5; Part I.A.4 at 6; Part I.A.5 at 9; Part I.A.9 at 9; Part I.A.24 at 11.

251. Massachusetts Surface Water Quality Standards provide in relevant part that “[a]ll surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.” 314 Code Mass. Regs. § 4.05(5)(e).

252. Under the Massachusetts Surface Water Quality Standards, the National Recommended Water Quality Criteria published by EPA in 2002 are the allowable receiving water concentrations unless otherwise specified. *See id.*

253. Many of ExxonMobil’s discharges violate applicable State Water Quality Standards, and as such, constitute violations of the Permit and the Clean Water Act. *See* Ex. H and Ex. I.

254. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

#### **Fourth Cause of Action**

##### **Violation of the Clean Water Act – Violation of Permit Prohibition on Visible Oil Sheen, Foam, or Floating Solids**

255. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

256. The Permit provides that a “discharge shall not cause a visible oil sheen, foam, or floating solids.” Ex. A, Permit Part I.A.8 at 9.

257. There have been at least four instances in which discharges associated with the ExxonMobil Everett Terminal and/or the Sprague Energy facility were reported to the National Response Center. All four of these incidents, which occurred in 2011, 2014, and 2015, resulted in a discharge that reached the water, identified as the Mystic River and/or the Island End River. *See* Ex. K.

258. These discharges constitute violations of the Permit and the Clean Water Act.

259. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

#### **Fifth Cause of Action**

##### **Violation of the Clean Water Act – Unpermitted Discharges to the Half-Moon Shaped Pond**

260. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

261. The half-moon shaped pond was part of the traditionally navigable Island End River or, alternatively, a navigable tributary to the traditionally navigable Island End River, and therefore was and is a water of the United States.

262. ExxonMobil's discharges of pollutants into the half-moon shaped pond are unpermitted and therefore violate the Clean Water Act.

263. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the permitting requirements of the Clean Water Act, these violations will continue indefinitely.

#### **Sixth Cause of Action**

##### **Violation of the Clean Water Act – Failure to Develop, Implement, and Maintain a SWPPP Designed to Reduce or Prevent Discharge of Pollutants**

264. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

265. The Permit states that “[t]he permittee shall develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in storm water to the receiving waters identified in this permit. The SWPPP shall be a written document and consistent with the terms of this permit. The permittee shall comply with the terms of its SWPPP.” Ex. A, Permit Part I.B.1 at 13.

266. ExxonMobil's application for coverage under NPDES permits, including the currently applicable NPDES Permit, as well as its SWPPP developed pursuant to the Permit, failed to include information documenting, or plans to address, pollutant discharges associated with the factors discussed in Section III.B, *supra*.

267. By failing to address the factors discussed in Section III.B, *supra*, ExxonMobil has not developed and is not implementing a SWPPP designed to prevent or reduce the discharge of pollutants in storm water to the receiving waters identified in the permit.

268. By failing to develop and implement a SWPPP designed to prevent the discharge of pollutants in storm water to the receiving waters, ExxonMobil is violating the Permit and the Clean Water Act.

269. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

### **Seventh Cause of Action**

#### **Violation of the Clean Water Act – Failure to Prepare SWPPP in Accordance with Good Engineering Practices**

270. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

271. The Permit requires that “[t]he SWPPP shall be prepared in accordance with good engineering practices.” Ex. A, Permit Part I.B.4 at 13.

272. ExxonMobil's SWPPP for the Everett Terminal was not prepared or updated in accordance with good engineering practices because the SWPPP was not based on information consistent with the duty of care applicable to engineers.



273. The SWPPP was not prepared based on information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, known to reasonably prudent engineers.

274. The SWPPP was not prepared based on information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, known to ExxonMobil.

275. By failing to prepare a SWPPP in accordance with good engineering practices, ExxonMobil is violating the Permit and the Clean Water Act.

276. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

#### **Eighth Cause of Action**

##### **Violation of the Clean Water Act – Failure to Identify Sources of Pollution Reasonably Expected to Affect the Quality of Stormwater Discharges**

277. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

278. The Permit requires that “[t]he SWPPP shall . . . identify potential sources of pollution that may reasonably be expected to affect the quality of the storm water discharges.” Ex. A, Permit Part I.B.4 at 13.

279. This condition of the Permit uses the term “pollution” as opposed to the term “pollutant.”

280. By failing to identify sources of pollution resulting from the factors discussed in Section III.B, *supra*, as sources of pollution reasonably expected to affect the quality of the storm water discharges from the Everett Terminal, ExxonMobil is violating the Permit and the Clean Water Act.

281. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

#### **Ninth Cause of Action**

##### **Violation of the Clean Water Act – Failure to Describe and Implement Practices to Reduce Pollutants and Assure Permit Compliance**

282. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

283. The Permit requires that “[t]he SWPPP shall . . . describe and ensure implementation of practices which will be used to reduce the pollutants and assure compliance with this permit.” Ex. A, Permit Part I.B.4 at 13.

284. By failing to describe or ensure implementation of practices which will be used to prevent and address pollutant discharges and/or releases resulting from the factors discussed in Section III.B, *supra*, in its SWPPP, ExxonMobil is violating the Permit and the Clean Water Act.

285. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

#### **Tenth Cause of Action**

##### **Violation of the Clean Water Act – Failure to Identify Sources, Spill Areas, and Drainage**

286. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

287. The Permit requires that “[t]he SWPPP shall contain the elements listed below: A summary of all pollutant sources which includes all areas where spills have occurred or could occur. For each source, identify the expected drainage and the corresponding pollutant.” Ex. A, Permit Part I.B.4(c) at 13.

288. The SWPPP does not address the factors discussed in Section III.B, *supra*, as pollutant sources.

289. The SWPPP does not identify areas where spills associated with the factors discussed in Section III.B, *supra*, could occur.

290. The SWPPP fails to identify expected drainage paths associated with the factors discussed in Section III.B, *supra*.

291. By failing to include the elements required under Permit Part I.B.4(c) in its SWPPP, ExxonMobil is violating the Permit and the Clean Water Act.

292. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

### **Eleventh Cause of Action**

#### **Violation of the Clean Water Act – Failure to Implement Adequate Spill Prevention and Response Procedures**

293. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

294. The Permit requires that the SWPPP contain “spill prevention and response procedures” in its BMPs. Ex. A, Permit Part I.B.4.e at 13.

295. The factors discussed in Section III.B, *supra*, can reasonably be expected to cause or contribute to the continued discharge and/or release of oil and other pollutants in quantities that may be harmful to receiving waters in violation of the SPCC regulations, the SWPPP, and the Permit.

296. Due to its location, the Terminal is at risk of discharging and/or releasing, and in some cases has already discharged and/or released, oil and other pollutants due to, including, but not limited to, infrastructure failures and inadequate infrastructure design resulting from, in part, the factors discussed in Section III.B, *supra*.

297. The SPCC Plan for the Everett Terminal was not prepared in accordance with good engineering practices because it is not based on consideration of the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, known to ExxonMobil, the petroleum industry, and to practicing engineers in Massachusetts.

298. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil, the SPCC fails to include necessary discharge and/or release prevention measures including procedures for routine handling of products (e.g., loading, unloading, and facility transfers, etc.).

299. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil, the SPCC fails to include necessary discharge, release, or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge and/or release.

300. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil, the SPCC fails to identify where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge or release).

301. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil, the SPCC fails to include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged and/or released from the facility as a result of each type of major equipment failure.

302. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil, the SPCC fails to provide appropriate containment and/or diversionary structures or equipment to prevent a discharge and/or release as described in 40 C.F.R. § 112.1(b).

303. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil, the SPCC fails to assure that the entire containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge and/or release from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs.

304. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil, the SPCC fails to address the typical failure mode associated with these factors and the most likely quantity of oil that would be discharged and/or released.

305. Due to ExxonMobil's failure to consider information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated

with these factors, including information known to ExxonMobil, the SPCC fails to include appropriately designed (i) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (ii) Curbing or drip pans; (iii) Sumps and collection systems; (iv) Culverting, gutters, or other drainage systems; (v) Weirs, booms, or other barriers; (vi) Spill diversion ponds; (vii) Retention ponds; or (viii) Sorbent materials.

306. In addition to these deficiencies in ExxonMobil's SPCC, ExxonMobil has failed to implement adequate spill prevention and response procedures by relying solely on its SPCC and FRP for "[d]etails regarding spill prevention and response" in its SWPPP.

307. The SPCC and FRP are not broad enough to cover adequate spill prevention and response across the entire Everett Terminal.

308. The SPCC is limited to spill prevention and response procedures for "oil" as that term is defined in the SPCC and federal regulations and does not address other pollutants.

309. The SPCC and FRP do not address spills associated with precipitation and flooding.

310. With regard to drum and portable container storage areas, mobile/transportation related container storage areas, and loading and unloading areas, the SPCC explicitly states that no attempt is made in the SPCC to locate these areas/items other than to identify that they can be present or occur throughout the Terminal, and, in some cases, that no attempt is made in the SPCC to provide specific information on secondary containment because the equipment and its corresponding location is highly variable.

311. The SWPPP fails to identify spill prevention and response measures for the areas explicitly excluded from the SPCC.

312. The Permit's requirement that the SWPPP contain "spill prevention and response procedures" applies to the entire Everett Terminal.

313. By failing to implement adequate spill prevention and response procedures, ExxonMobil is violating the Permit and the Clean Water Act.

314. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

### **Twelfth Cause of Action**

#### **Violation of the Clean Water Act – Failure to Submit Relevant Facts and/or Correct Information to Regional Administrator**

315. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

316. The Permit requires that “[w]here the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.”

Ex. A, Permit Part II.D.1.h at 9.

317. ExxonMobil has failed to submit relevant facts and/or submitted incorrect information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, in its permit application and in reports to the Regional Administrator.

318. By failing to submit relevant facts and/or submitting incorrect information, and failing to promptly submit such information upon becoming aware that it had not previously been submitted, ExxonMobil is violating the Permit and the Clean Water Act.

319. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

### **Thirteenth Cause of Action**

#### **Violation of the Clean Water Act – Failure to Amend or Update the SWPPP**

320. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

321. The Permit requires that

The permittee shall amend and update the SWPPP within 30 days for any changes at the facility affecting the SWPPP. Changes which may affect the SWPPP include, but are not limited to, the following activities: a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States . . . . Any amended or new versions of the SWPPP shall be re-certified by the Permittee. Such re-certifications also shall be signed in accordance with the requirements identified in 40 CFR § 122.22.

Ex. A, Permit Part I.B.6 at 14.

322. ExxonMobil has amended its SWPPP seven times since the Permit became effective in 2012, most recently in November 2015, without making any structural changes to the facility. *See* Sept. 12, 2017 Hr’g Tran. at 31.

323. ExxonMobil has not amended or updated its SWPPP based on information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, known to ExxonMobil, in violation of the Permit and the Clean Water Act.

324. ExxonMobil has not amended or updated its SPCC, including an engineer’s certification, based on information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, known to ExxonMobil. *See* 40 C.F.R. § 112.5.



325. The Permit requires that

the permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of [the] permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

Ex. A, Permit Part II.B.1 at 4; *see also* 40 C.F.R. § 122.41(e).

326. ExxonMobil has failed to properly operate and maintain the Terminal due to its failure to consider and act upon information regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, including information known to ExxonMobil.

327. The Permit requires that “[t]he permittee shall take all reasonable steps to minimize or prevent any discharge . . . in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.” Ex. A, Permit Part II.B.3 at 4; *see also* 40 C.F.R. § 122.41(d).

328. ExxonMobil has failed take all reasonable steps to minimize or prevent any discharge in violation of the Permit which has a reasonable likelihood of adversely affecting human health or the environment due to its failure to consider and act upon information regarding the substantial risk of pollutant discharge and/or release associated with the factors discussed in Section III.B, *supra*.

329. By failing to properly amend or update its SWPPP, ExxonMobil is violating the Permit and the Clean Water Act.

330. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

#### **Fourteenth Cause of Action**

##### **Violation of the Clean Water Act – Unlawful Certification of SWPPP**

331. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

332. The Permit requires that “[t]he SWPPP shall be completed or updated and signed by the Permittee within 90 days after the effective date of this Permit. The Permittee shall certify that the SWPPP has been completed or updated and that it meets the requirements of the permit. The certification shall be signed in accordance with the requirements identified in 40 C.F.R. § 122.22.”

Ex. A, Permit Part I.B.2 at 13.

333. 40 C.F.R. § 122.22(a)(1) requires that a permit application submitted by a corporation be signed by a responsible corporate officer:

For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

*Id.* Section 122.22(a)(1) also notes that

EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in §

122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under § 122.22(a)(1)(ii) rather than to specific individuals.

*Id.*

334. 40 C.F.R. § 122.22 required ExxonMobil make the following certification when signing such documents:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

40 C.F.R. § 122.22(d).

335. ExxonMobil made the required certification at the time of submittal of each of its NPDES permit applications.

336. ExxonMobil made the required certification at the time of development and certification of its SWPPP.

337. ExxonMobil made these certifications without disclosing information in its possession and relied on by the company in its business decision-making regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors.

338. ExxonMobil made these certifications without developing, implementing, and updating a SWPPP based on information in its possession and relied on by the company in its business

decision-making regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors.

339. ExxonMobil made these certifications without developing, implementing, and updating an SPCC based on information in its possession and relied on by the company in its business decision-making regarding the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors.

340. ExxonMobil's failure to disclose and consider the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, renders its SWPPP, NPDES permit application, and SPCC certifications to not be true, accurate, and complete, and is therefore unlawful under 40 C.F.R. § 122.22.

341. By failing to prepare the SWPPP in accordance with the requirements identified in 40 C.F.R. § 122.22 to which ExxonMobil certified that it had complied, ExxonMobil is violating the Permit and the Clean Water Act.

342. These violations are ongoing and continuous, and barring a change at the Terminal and full compliance with the Permit and the Clean Water Act, these violations will continue indefinitely.

### **Fifteenth Cause of Action**

#### **Violations of the Resource Conservation and Recovery Act – Imminent and Substantial Endangerment to Human Health and the Environment**

343. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

344. At the Everett Terminal, ExxonMobil is regulated under RCRA as a "Large Quantity Generator" of hazardous waste, Handler ID No. MAD000842427.

345. As described above, ExxonMobil's Everett Terminal generates, stores, handles, and disposes of toxic and hazardous chemicals, metals, and compounds, including but not limited to:

Ignitable Waste, Petroleum Hydrocarbons, Benzene, Toluene, Ethylbenzene, (m,p,o), Xylenes, tert-Butyl Alcohol, Naphthalene, Phenols, Phthalates (Phthalate esthers), Polycyclic Aromatic Hydrocarbons (PAH), Acenaphthene, Anthracene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, Pyrene, Antimony, Arsenic, Cadmium, Copper, Lead, Nickel, Selenium, and Zinc.

346. As described above, ExxonMobil has discharged and/or released pollutants from the Terminal, and will likely continue to do so, due to, including, but not limited to, infrastructure failures and inadequate infrastructure design.

347. There is a substantial and imminent risk of ExxonMobil's Everett Terminal discharging and/or releasing pollutants because the Terminal has not been properly engineered, managed, and fortified or, if necessary, relocated to protect against the factors discussed in Section III.B, *supra*.

348. ExxonMobil has not integrated the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, into its systems for handling, storage, or disposal of hazardous waste at the Everett Terminal.

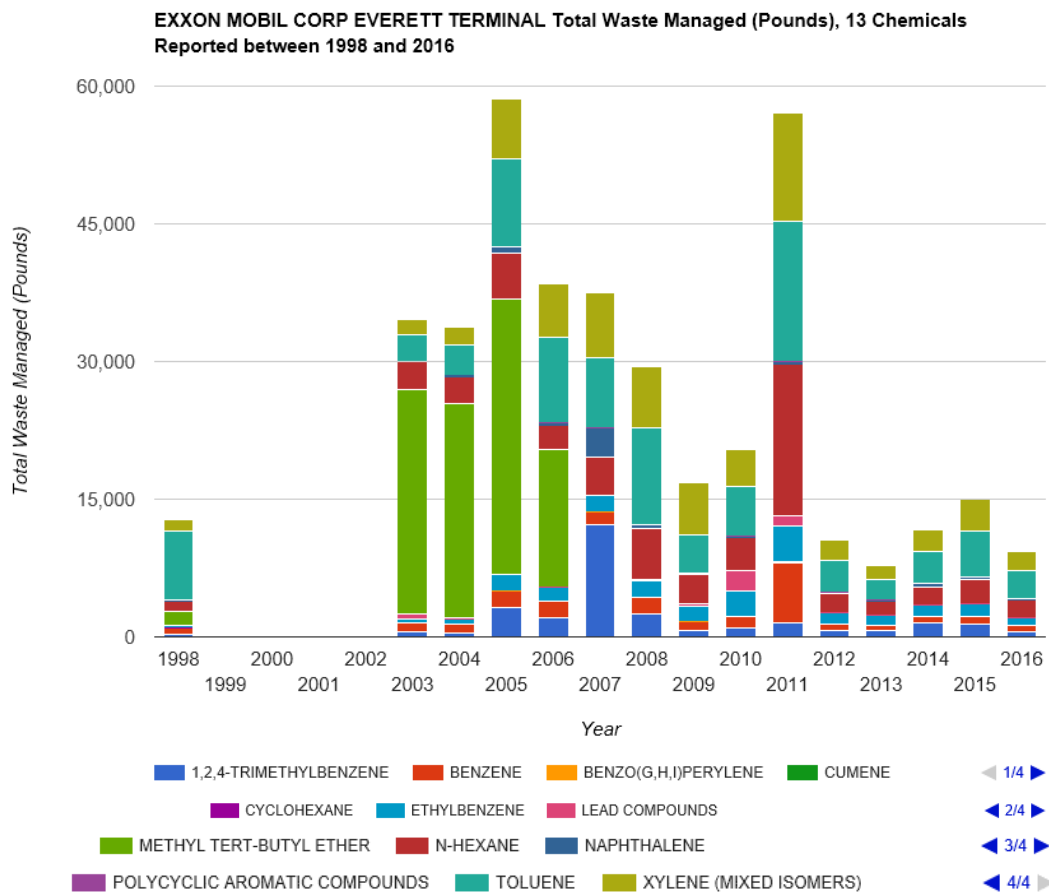
349. ExxonMobil has failed to address the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors, in its RCRA and other compliance and permitting filings.

350. ExxonMobil has not meaningfully modified the Everett Terminal to prevent pollutant discharges and/or releases associated with the factors discussed in Section III.B, *supra*.

351. The design of the Everett Terminal, and any regulatory filing associated therewith, is based on standards for spill containment, drainage, and resistance to weather events that do not integrate information related to the factors discussed in Section III.B, *supra*, and the substantial risks of pollutant discharges and/or releases associated with these factors.

352. ExxonMobil's failure to adapt the Everett Terminal to the factors discussed in Section III.B, *supra*, puts the facility, the public health, and the environment at substantial and imminent risk of pollutant discharges and/or releases from the Terminal into the Island End River, Mystic River, and directly onto the city streets of Everett.

353. The resulting harm and ongoing risk of harm to the Terminal, the public health, and the environment has been and will continue to be significant, due to the magnitude of waste managed by the Terminal:



EPA, *Exxon Mobil Corp Everett Terminal Total Waste Managed (Pounds), 13 Chemicals Reported between 1998 and 2016*, [http://iaspub.epa.gov/triexplorer/facility\\_profile\\_charts?p\\_tri=02149XXNCS52BEA&p\\_VAR=WST\\_PROD&p\\_LABEL=Total+Waste+Managed%20\(Pounds\)](http://iaspub.epa.gov/triexplorer/facility_profile_charts?p_tri=02149XXNCS52BEA&p_VAR=WST_PROD&p_LABEL=Total+Waste+Managed%20(Pounds)) (last visited Oct. 11, 2017).

354. ExxonMobil itself has acknowledged that “a release at the Terminal would likely have catastrophic effects on both human life and the environment.” Ex. D.

355. ExxonMobil’s operation of its Everett Terminal presents an “imminent and substantial endangerment to health or the environment” because the factors discussed in Section III.B, *supra*, have resulted and will result in discharges and/or releases of solid and/or hazardous wastes into the environment and surrounding residential communities.

356. Due to its failure to mitigate these risks, ExxonMobil has contributed and is contributing to the past or present handling, storage, treatment, transportation, or disposal of solid and hazardous wastes which may present an imminent and substantial endangerment to health or the environment under 42 U.S.C. § 6972(a)(1)(B), in violation of RCRA.

#### **RELIEF REQUESTED**

357. Wherefore, CLF respectfully requests that this Court grant the following relief:

- a. injunctive relief pursuant to § 7002 of RCRA, 42 U.S.C. § 6972, ordering ExxonMobil to perform and pay for such work as may be required to respond to the hazardous waste and solid waste present at the Everett Terminal and restraining ExxonMobil from further violating RCRA;
- b. declaratory and injunctive relief to prevent further violations of the Clean Water Act pursuant to §§ 505(a) and (d) of the CWA, 33 U.S.C. § 1365(a) and (d);
- c. civil penalties of up to \$37,500 per day per day per violation for all CWA violations occurring between January 12, 2009 and November 2, 2015; up to \$51,570 per day per violation for all CWA violations occurring after November 2, 2015 and assessed on or after August 1, 2016 but before January 15, 2017; and up to \$52,414 per day per violation for all CWA violations occurring after November 2, 2015 and assessed

on or after January 15, 2017, pursuant to § 309(d) of the CWA, 33 U.S.C. § 1319(d), and the regulations governing the Adjustment of Civil Monetary Penalties for Inflation, 40 C.F.R. §§ 19.2, 19.4;

- d. and an award of the costs of litigation, including reasonable attorney and expert witness fees, under § 7002 of RCRA, 42 U.S.C. § 6972, and § 505(d) of the CWA, 33 U.S.C. § 1365(d); and
- e. all other relief as permitted by law.

### **JURY DEMAND**

CLF requests a jury trial on the issue of liability and any other issue cognizable by a jury.

Respectfully submitted,

Dated: October 20, 2017

CONSERVATION LAW FOUNDATION, INC.

By its attorneys:

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*\*Admitted Pro Hac Vice*



**CERTIFICATE OF SERVICE**

I hereby certify that on October 20, 2017, the foregoing Amended Complaint was filed through the ECF system, by which means a copy of the filing will be sent electronically to all parties registered with the ECF system.

/s/ Heather A. Murray  
Heather A. Murray